# Biographies of British Gardeners
## M-R

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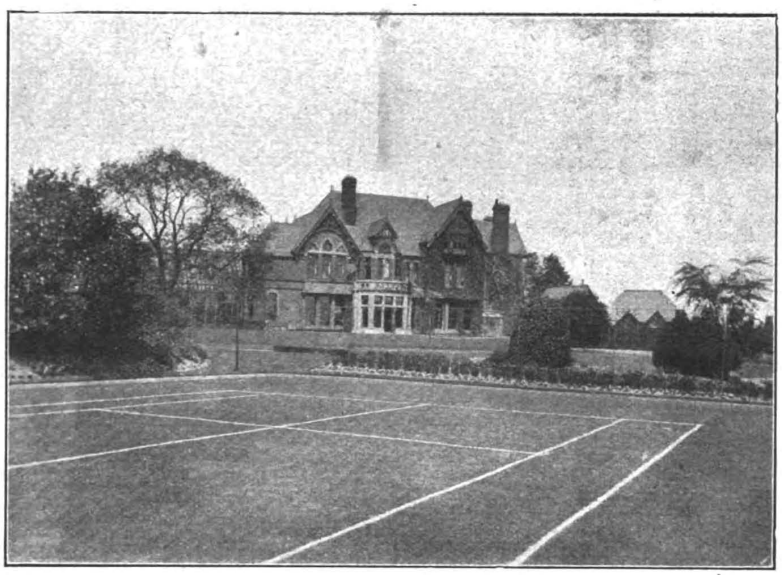
WILLIAM MACAULAY.—This well-known seedsman passed away on the morning of November 24, at Selkirk, at the great age of 90 years. He was a native of Stirlingshire, having been born in the parish of St. Ninians, on February 7, 1810. He was the eldest, and the last survivor of a family of eleven. He served his apprenticeship in the gardens of Plean estate, then belonging to Colonel Simpson, under the late Mr. Laing (afterwards of Stirling, the original raiser of the once famous Stirling Castle Strawberry). After gaining further experience as a journeyman, first at Alva House, on the slope of the Ochil Hills, and then on the adjoining Tilliconltry House Estate, he returned to Plean as head gardener. After a few years, owing to a change of ownership, he left, and was for some short time employed in the nursery of Messrs. Dickson & Sons, of Edinburgh, from which he was appointed to the charge of the gardens on the beautiful estate of the Haining, near Selkirk. He remained there for about twenty-nine years, during which time he saw various changes, both in the ownership of the estate, and among the tenants of the mansion. He thereafter commenced business in Selkirk as seedsman and florist, and this he carried on for about twenty-seven years. Always an ardent horticulturist, and at one time a keen and successful competitor, his services as a judge at horticultural shows were in frequent request in the surrounding district. For some years he held the office of secretary to the Horticultural Society of the town, a position now held by one of his sons. He leaves a widow and family to mourn his loss, and much sympathy is felt for them in their bereavement. GC, 1900, ii

# THE GARDENS OF SIR GEORGE KENRICK, AT WHETSTONE, EDGBASTON, BIRMINGHAM.

## Interview with Mr. J. V. Macdonald.

IN the Midland counties, the gardens of Whetstone have acquired a great reputation. Sir George Kenrick, the owner of one of the most delightful mansions in the suburb of Edgbaston, has been Lord Mayor, and is one of the best-known citizens of Birmingham. Mr. Macdonald, his gardener, has proved his horticultural capacity and ingenuity by the successes which he has obtained at the leading shows. It was with much pleasure that I availed myself of the courtesy of Sir George, and visited his gardens a few weeks ago. Whetstone stands just above the railway, close to a local station, and has to pay certain penalties for the position. Proceeding on my arrival to the end of the lawn in order to inspect the rockery, I noticed that a large mass of Heaths had been destroyed, and asked the cause.

"They were set on fire last year by sparks from a passing train," replied Mr. Macdonald. "We had a fine collection of Ericas, upwards of thirty varieties being represented, but only about a dozen plants survived the fire. We have since planted only two varieties, Erica carnea and E. vulgaris Allportii, which are specially robust, and may survive a future shower of sparks from an engine in the cutting below. Fog is an enemy with which we have often to contend. The soil is very light, and is fairly adaptable for most things, as you will see as we walk round."



THE LAWN AT WHETSTONE GARDENS.

### The New Rock Garden.

"When was the rock garden made?"

"Three years ago on the site of an old orchard. In order to make it, a quantity of earth had to be taken out from the bottom before planting. The varieties include Veronicas, Anemones, Primulas, Saxifrages, Sedums, Campanulas, Cistus, Arenarias, Dianthus, Thymus, Silenes, and Statices. Adjacent are a number of Fritillarias, of which we have a large collection."

"Considering the difficulties, and the short time since it was planted, the rock garden looks remarkably well. From this point, too, the grassy slopes, the lawn, and the house present a very attractive appearance."

"At either end you get a full view of the gardens. They only cover three acres, but every corner is, I think, turned to account. The houses are, of course, a great feature."

"Yes, I assumed that from the reports I have seen of your exhibits. But I want to know as much as possible respecting the outside, and the plants which thrive on this high and exposed ground. The Azaleas seem to like their home."

"They owe their healthy appearance probably to the peat which we put into the soil. We have also to use a quantity of peat for Rhododendrons."

"Which likewise seem to be responsive. What is the length of the herbaceous border?"

"A hundred and twenty yards, and between six and seven feet wide. The system is to plant in clumps, of which the more conspicuous are Spiræas, Helianthemums, Delphiniums, Trollius, Asters, Geums, Papaver orientale, Erigeron speciosum grandiflora, Liliums in variety, Pyrethrums, Rudbeckias, Potentillas, and Heleniums."

"The effect of the border must be greatly enhanced by the Roses, which I see are trained on poles opposite?"

"And by the Lilium candidum interspersed, which flower abundantly. The Liliums have been planted five years. We manure them every year as soon as the blooming season is over in the middle of July. On the other side of the Roses are Dianthus seedlings. We weed out the poor specimens, and keep the best each season. The border underneath the wall, about forty yards long, has English and Dutch Irises, edged with Myosotis alpestris Victoria, with Daffodils, of which we use about four thousand, behind. In the summer they are followed by early Chrysanthemums, with an edging of Marigolds or Ageratums."

"Below the Heath beds you have a fine show of Hyacinths."

"They are planted to colour. The Hyacinths are blue, pink, and white, two light blue clumps at the end. Tulips, which come on later, are scarlet, pink and white, and white. In summer a scheme of colour is also carried out, with different annuals, all in beds of one variety. Amongst these, Antirrhinum Sunset, a golden shade, is remarkably effective. Scarlet, pink, white, and yellow are the other shades prevailing."

"The clump of Rhododendrons on the right heightens the effect produced by the Hyacinths."

"They were planted five years ago, and consist entirely of Pink Pearl. The colour is exceedingly good, but the spikes are rather too big. This was originally the limit of the garden before the extension, and here flowering shrubs do well enough. The poorer the soil, the better the berries of the Cotoneasters in the centre. The flowering Cherries and Peaches, Olearia Haastii, Weigelas, and Rose of Sharon are amongst the most satisfactory."

"I see that there is another rockery, with Aubrietias to the fore."

"That rockery was made years ago, and has been reconstructed. The Pæonies on the top of the rockery greatly owe their good appearance to the fact that they have not been disturbed. If you disturb a Pæony, it will be three years before the plant gets over the process. Near the two tennis-courts, we are now planting a new rockery, using a quantity of loam. It has the advantage of protection from a hedge behind. Saxifrages and Helianthemums predominate."

"What will succeed the Wallflowers in the bed which runs the full length of the tennis-courts?"

"Geraniums and Calceolarias. The edging will probably still be blue Violas, as it is to the Wallflowers, Blood-red and Belvoir Castle. Sir George is very fond of blue flowers, and we put in that colour wherever we can."

"In a bleak spot," continued Mr. Macdonald, "we have just made some new Rose beds, all Teas mixed. The soil used was marl and loam."

### Wintering Silenes.

Proceeding up the slopes, we entered another garden, divided by a Holly hedge from the main pleasure grounds, in which many Wallflowers were in bloom.

"These," said Mr. Macdonald, "are succeeded by Cactus and Pæony-flowered Dahlias. In

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this garden we have been able, for the first time, to winter Silenes in the border. They will not stand exposure, but the shelter here is complete."

"Prominent amongst the beds adjacent to the house, I observe a blaze of scarlet Tulips."

"With Cratægus pyracantha round them. In the summer that bed is occupied with Shirley Poppies. Another bed is a combination of double Arabis and scarlet Tulips, with Hollies in the centre. Tritomas, which do remarkably well here, come on later."

"How do you treat your Tritomas?"

"We take care to put them in a sheltered spot, give a good mulching of decayed manure, and in the winter we tie the foliage straight up. This is a great protection in severe weather."

The kitchen garden, beyond the range of glass, is small, but it is brightened by many flowers, and laid out to the best advantage. Border Carnations are largely grown. Cotton is put over the plants to keep the birds off. Behind the Border Carnations are Chrysanthemums.

"We leave the old tops on until May," remarked Mr. Macdonald; "they are a valuable protection during the inclement days of the winter."

**The New Sweet Pea.**

"You have quite a Rosery here?"

"It is entirely planted with Hybrid Perpetuals mixed."

"Then, there are your Sweet Peas?"

"The most noteworthy of the Sweet Peas is Stirling Stent, of which I am trying an entire row. It is a beautiful pink variety, and I expect much from it.

"Is there anything special in hardy fruit or vegetables?"

"Scarcely. The flavour of the wall Peaches, Early Rivers and Royal George, situated north to east, is excellent; and we grow a quantity of Royal Sovereign, the single variety of Strawberry which does better than any other. As to vegetables, Peas, Kinver and Stourbridge Marrow (both Webbs), are very good, and we have a fair quantity of Beans and Asparagus. But flowers outside or inside take precedence of everything."

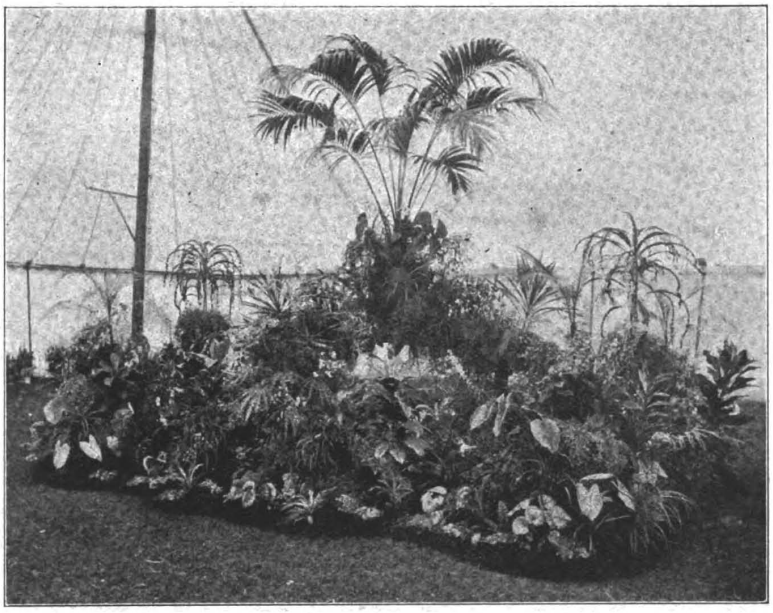
"And now it is time to explore the domain inside?"

"I think so, beginning with the greenhouses. Tree Carnations are grown in two compartments, and flower all the year round, but chiefly in winter."

"I see that you get a beautiful shade of blue into your Hydrangeas. How do you manage it?"

"By feeding them. For five years in succession, our blue Hydrangeas won first prize at Wolverhampton. The flowers are three times as big as the 'forty-eight' pots in which they are flowered."

"Schizanthus seem to be another favourite with you?"



ONE OF MR. MACDONALD'S GROUPS.

"Yes, we flower them in spring, and also in August. S. pinnatus roseus, now in flower, is one of the prettiest. If the Schizanthus are repotted, they flower altogether for four months, from April to the end of July, growing up ten feet high. But it is necessary to keep on changing the pots. Liliums in variety, Francoas, Calceolarias, and Chrysanthemums, are also grown in these houses."

HERBACEOUS BORDERS AT WHETSTONE GARDENS.

**Ixoras for Show.**

Then we entered the magnificent corridor, with houses giving out on the right, and planted with many varieties on both sides. We turned our attention first to the houses.

"This house," said Mr. Macdonald, "is chiefly devoted to Phalænopsis Orchids, of which there are six varieties."

"You have some beautiful spikes of flower, and almost as much as the Orchids, I am impressed by the Ixoras, of which you have some wonderful plants."

"I am getting them up for our Wolverhampton and other shows. They are four feet high, and this variety is I Duffii, whose scarlet flower comes out in July. The habit is something like that of a Chrysanthemum. Another plant which has scarlet foliage in August, and deserves to be better known, is Nandina domestica, which I also show."

"Is this the Dendrobium house?" I asked, as we entered another.

"No, it is the Cattleya house, in which we are growing just now a number of Dendrobiums. We have had as many as seventeen to twenty flowers on a spike of D. Dalhousieanum. You may like to know the history of some of our Dendrobium stock. Twelve years ago I bought at the sale rooms a plant for four shillings, and we have now numerous plants, with wonderful spikes, and growths five feet high. There are several representative varieties, and you might note the pretty white flower, Epidendrum bicornutum, which is well worth cultivation. The next is the Dendrobium house, and then, you see, we have Begonias of the Rex family; a number of Crotons, Caladiums just starting, and a number of hybrid Dendrobium seedlings."

"You have yet more Dendrobiums in the stove?"

"Yes, and these plants are all part of the stock I mentioned just now, some of which are now worth five sovereigns each, a fact which shows that Orchids sometimes pay for their own cultivation. Here are a number of Crotons, which we start in 2-in. pots, going on to 8½-in. pots for the big plants. In this way we get noble specimens for show."

"Whose colours are also remarkably fine."

"Oncidiums are one of the features of the next house. Here is a variety which lasts in flower for a month. It is Oncidium vexillia, and we get twenty-one flowers out of one bulb. It is a wonderful specimen, with growth unsurpassed by any. We started Oncidiums flexuosum with one plant, which by means of propagation has yielded one hundred and forty. In this house are also a number of Odontoglossums, Phalænopsis, and a charming flower of

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Dendrobium cariniferum. This is one which we bought imported. I tried three plants, two of which died; the other, when brought into this house, lived. We have to find out just the position the individual plants like. It is a serious mistake to give some of them very much heat."

**Hybrid Rhododendrons.**

"What is the temperature of this house?"

"Sixty degrees, and I strongly advocate cooler houses than are sometimes used, for many varieties of Orchids. The roof of this is covered entirely with Orchids."

"In the next, I see, you have a collection of Selaginellas."

"It is really the Rose house, in which we grow Tea varieties for winter use, and the Selaginellas are here temporarily. Then we come to the hybrid Rhododendrons, which are a great feature. They flower twice a year, and freest of all in winter. The next is quite a cool house, in which Fuchsias, used for grouping purposes, are grown."

"What is the variety?"

"Triphylla. It is a very difficult thing to ascertain the position which this Fuchsia likes, but when you get it, the result, as you can judge from these plants, is very satisfactory. Here, too, are Bamboos in pots, and Amaryllis, from which we have had some beautiful blooms."

**Mr. Macdonald's Exhibits.**

"You have done a deal in showing, Mr. Macdonald?"

"My chief exhibition work has been in grouping. Amongst my principal successes I reckon the first prize which I obtained in August, 1900, at Shrewsbury. This was my first appearance at that famous show, and, in addition to the first prize for bunches of cut flowers, stove and greenhouse varieties, I was awarded a special certificate for cultural excellence. In 1902 I secured the second prize for a group at Shrewsbury, the first being won by Mr. Cypher, of Cheltenham; and the following year, at Handsworth, I had the satisfaction of beating Mr. Cypher."

"You might tell me what your group on that memorable occasion was like?"

"The centrepiece was, as usual, a cork bark-covered bridge, surmounted with a specimen of Phœnix rupicola, the two basements of the bridge being furnished with a complement of Fuchsia triphylla, whose dark green foliage and coral-red, can hardly be beaten. For the four corner mounds of the feature, Croton Warrenii was used. Among the plants in the group were Ixoras, Caladiums, Bamboos, and a few Orchids, such as Cattleyas and Oncidium flexuosum. At Shrewsbury, in 1909, the year in which Sir George Kenrick was lord mayor of Birmingham, I succeeded in beating Mr. Cypher, also securing a second card for a group of miscellaneous plants arranged for effect. Last September I also distanced Mr. Cypher, at Sandy. I have put up groups at Birmingham, King's Norton, Walsall, Acock's Green, Stourbridge, Northampton, Derby, Leamington, and Wolverhampton, carrying off various honours."

"Where did you start your gardening career?"

"At Downie's Nurseries, in Edinburgh. My first place as foreman was in Lord Aberdeen's gardens, and I was successively foreman at Mr. Gaide's, Falkirk, propagator at Messrs. Thompson and Sons, Clovenfords, and foreman in Lord Belper's gardens at Ringstone Hall. Seventeen years ago this April I became head gardener at Whetstone."

ALFRED WILCOX.

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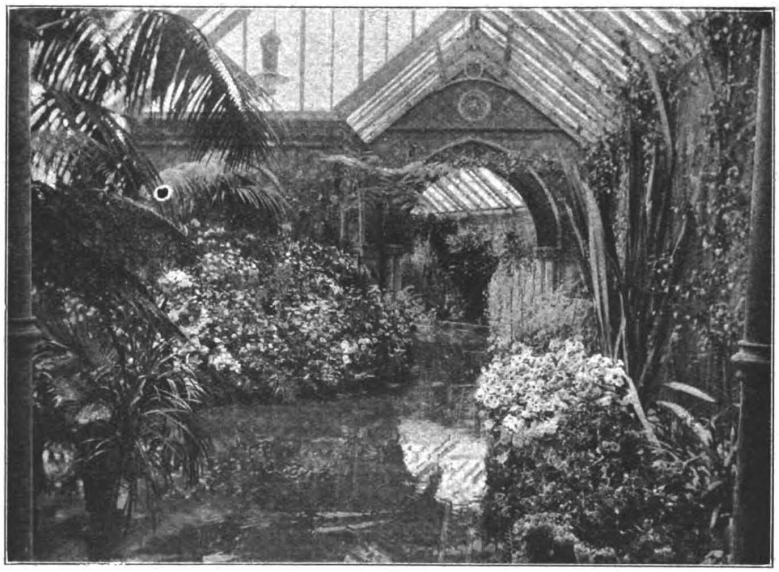
NEXT week's interview will be with Lady Barbour, and will describe the gardens at Tiltwood, Crawley Down.



ONE OF THE PLANT HOUSES AT WHETSTONE GARDENS.

## Pot Roses and Climbers.

ALL Roses in pots of whatever kind should now be taken outside for the summer months. As a preliminary, place them on their sides on the grass, or with a garden mat under them; then syringe them with the greatest possible force on the under sides of the leaves—turning them half round, so as to catch every part thoroughly. This syringing should cut off every red spider, and all other pests which may be lurking there.

**Where to Stand the Pots.**

The best place for the plants would be to plunge the pots in ashes where some tree or high building will shade them from the sun from eleven or twelve o'clock, until about three o'clock. If this cannot be done, then an easterly position, where they can get the sun up to midday, would be a good one. If neither of these can be found, I prefer the full sun all day to one of shade the whole day.

We must always remember that the roots are confined in the pots; that they have been there long enough to have exhausted almost all the nutriment contained in the soil when they were potted; and that the plants have in some cases to make growth, and in all cases to store up food in the stems and buds for the making of shoots and buds for another season; so that they will not only require water regularly, but manure-water also during the summer months. The flower buds must be picked off as soon as they are formed, and before they are large enough to be properly seen as buds.

**Cutting Back.**

The various kinds of Roses require different treatment as to making new growths while outside during the summer. The Hybrid Perpetuals are not encouraged to make much new growth, but that which they made under glass is built up and matured, so that there may be some good buds to prune back to in the autumn. I have, in some cases, cut the plants back at this time, and encouraged them to make some stronger growths; but it has not always been a success. The Hybrid Teas, or the Teas, I have cut back when they have been weakly, and these generally seem able to make some better growths for another season.

All ungainly plants I cut partially back at this time, and they always make more bushy plants by doing so. I have one or two loads of fresh horse manure in a heap, and stand the plants on the top. The manure is thrown into a fairly high heap, and trodden solid and level on the top. The warmth and moisture soon cause the plants to start into active growth and fine bushy specimens are made in one season, in readiness for blooming in the early winter months.

**Treatment of Ramblers.**

The Rambler Roses must be kept growing throughout the summer, and will need constant feeding and tying up to the stakes as they grow. As soon as the strong young shoots have made a start into growth, all the old wood of last year should be cut away. These plants are rather subject to red-spider when grown under glass, and they want watching. They should be laid on their sides and syringed forcibly as soon as the first signs are visible; although a thorough syringing as soon as they come out of the house will generally be sufficient to keep them clean through the summer.

Climbing Roses under glass which are planted out should have attention. Make room for the strong young shoots by removing the old, weakly wood, which has become exhausted. It is better to train the growths a little too thinly than too close together, both for plants growing under them, and for the future Roses.

**Striking Cuttings.**

This is a good time for putting in Rose cuttings from such thinnings. The young shoots which have borne blooms, if they are six or more inches long, will generally strike now. If the cuttings are put round the sides of 6-in. pots, filled in with sandy soil and made firm, then stood in a frame, kept close, and shaded, they will commence to grow in two or three weeks. Marechal Niel makes the best plants when struck in this way. They will sometimes strike if put almost their full length in the ground outside, and kept thoroughly watered.

ROSEUM.

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In Shakespeare's time "squash" and "peascod" were the respective names by which the young and mature pods of the Pea were called.

THE fruit of the Carica papaya, which has for long been cultivated in the stove house rather as a curiosity than for its edibility, occasionally finds its way on to the market, where it is known as Papaw. In appearance it resembles the Melon and the Vegetable Marrow, and its milky juice is of a pungent flavour. It is highly esteemed in some parts of South America, being eaten either cooked or in the raw state, but, as a rule, it is not in great favour with Europeans. The tree is an evergreen, growing to a height of about twenty feet, and does well in a rich, loamy soil. Cuttings of ripe shoots strike readily in sandy soil, if given a genial bottom heat.

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# THE GARDENS AT CUCKFIELD PARK, SUSSEX.

## Interview with Mr. H. MacFadyen.

THERE are several reasons why the gardens at Cuckfield Park are exceptionally interesting. One is that the "Rookwood" of Harrison Ainsworth covers a description of Cuckfield, a fact of which I was not aware until I stood by the side of the old tower mentioned in the novel, and saw the clock, three hundred years old. The changes in the gardens effected by the present owner, Mr. J. Brietmeyer, are also very extensive, and they have been carried out under the auspices of the head gardener, Mr. H. MacFadyen, with remarkable success. I was able to appreciate their beauty even on my arrival on an August afternoon, in drenching rain, and when the sun subsequently broke out, their appearance, from almost any aspect, was most picturesque. Making our way to the south front of the fine Elizabethan mansion, which, together with a portion of the west front, is part of the original ancient building, I asked Mr. MacFadyen how he managed to keep such a large lawn in such a perfect condition.

"It is mown once a week," he replied, "not only in early spring, but all through summer and autumn. We try to make the prospect from the windows as pleasing as possible. In spring the banks of the lake beyond the lawn, right down to the boathouse, are covered with Daffodils, naturalised for the purpose. On the north side, as you see, the creepers are Magnolia grandiflora, Cotoneasters in variety, Clematis montana, Wistaria sinensis, and Ivies."

### The Evolution of a Rose Garden.

Crossing the lawn, we next descended some steps in order to inspect a notable addition to the pleasure grounds, which bears the name of the Rose Garden, but is really a magnificent flower garden, full of all sorts of beautiful things.

"This," said Mr. MacFadyen, "was originally a kitchen garden, and was planted to its present use eight years ago."

"How did you prepare the beds?"

"In making the beds, we thoroughly trenched the ground, adding large quantities of virgin turf, leaf-soil, burnt soil, and wood-ashes, cow manure, and some superphosphate of lime. You will notice that a few of the old fruit trees have been allowed to survive, and also the fruit trees on the walls. As to the arrangement of the Roses, they are planted in masses of one variety, a single bed containing one hundred and twenty plants The principal of these are Souvenir de lai Malmaison, Ulrich Brunner, Mrs. John Laing, Frau Karl Druschki, La France, Baroness Rothschild, Caroline Testout, Alfred Colomb, Margaret Dickson, General Jacqueminot, Grace Darling, Paul Neyron, and Queen Victoria; all of these are bushes. The Teas and Hybrid Teas in the long border are also bushes, our only standards being the climbing and pillar varieties."

"Are the varieties in the border mixed?"

"Yes. They include some of the varieties already named, and also Duke of Edinburgh, Marquise Litta, Mildred Grant, Killarney, Lady Roberts, Maman Cochet, Marchioness of Londonderry, Kaiserin Augusta Victoria, A. K. Williams, Madame G. Luizet, Madame Victor Verdier, Maria Baumann, Dr. Andry, Dupuy Jamain, Dean Hole, Abel Carriere, W. J. Grant, Duchess of Bedford, Souvenir de Paul Neyron, Viscountess Folkestone, Cheshunt Hybrid, Duke of Wellington, Hugh Dickson, and John Ruskin. The border contains about five hundred plants."

### How to Retard Eremurus.

"Then, the Eremurus are a great feature."

"They have not been disturbed since they were planted seven years ago. We top-dress them annually with leaf-mould early in winter.

MR. H. MACFADYEN.

When they begin to rush through in spring, I put about a foot of sea-sand on the crown of each plant. This retards the growth for several weeks. When they again rush through, Fir branches are placed all over the bed, and staking and tying are attended to. There are about three dozen in the bed, and they are quite ten feet high. The varieties are E. himalaicus and E. Robustii. The bed is filled in with clumps of Sweet Peas, Gladiolus Brenchleyensis, Hyacinthus candicans, with an edging of Border Carnations."

"You have a fine herbaceous border of tall and dwarf varieties."

"The aim is to have something always in flower from May until the end of October, and practically, when one plant ceases to bloom, another begins. The taller plants include Delphiniums in variety, including The King, Mabel Ward, Albion, Sir Walter Scott, Emily, etc.; Rudbeckia Golden Glow, Helenium grandicephalum; Telekia speciosa; Aconitums bicolor, autumnalis, and alba; Helenium cupreum, Astilbe Davidii, Verbascum phœniceum, Bocconia cordata, Sidalceas Listerii and Rosy Gem, Chrysanthemum uliginosum, Chrysanthemum maximum Mrs. Lowthian Bell and Queen Alexandra, Scabiosa lutea, Achillea Snowball, Gypsophila paniculata flore pleno, Dracocephalum virginianum, Salvia Turkestan, Incarvillea Delavayi, Rudbeckia Newmanii, Montbretias Prometheus and Bouquet Parfait, Gladioli America and Baron Joseph Hulot, etc.; Iris and Pæonies in variety, Tritomas in variety, Bupthalmum salicifolium, Campanula Moerheimii. Veronica longifolia subsessilis, Alstrœmerias in variety, Gaillardias, Statices in variety, Oriental Poppies, Lupin rosea, and Anchusa, Dropmore variety."

"Are not Phloxes also largely represented?"

"Yes. The best varieties are, chiefly, General French, Coquelicot, Etna, Aurora, Iris, Crepuscle, Sheriff Ivory, Antonin Mercie, Von Lassberg, Ophir, and Purity."

"Then there are the great clumps of Sweet Peas, which are also grown in rows. I should like to know the names of the best varieties."

"President, Horace Wright, Dodwell F. Brown, Etta Dyke, Elegance, Clara Curtis, Constance Oliver, George Stark, Mrs. H. Bell, Prince of Asturias, Elsie Herbert, Frank Dolby, George Herbert, Countess Spencer, Prince Olaf, Princess Victoria, and Evelyn Hemus."

### The Treatment of Montbretias.

Walking along the pretty grass paths, and observing the wealth of blooms on the Crimson Ramblers climbing over the trellis adjacent to the sundial, I commented on the exceeding brilliance of the blocks of Montbretias.

"It may be due," rejoined Mr. MacFadyen, "to the fact that we take the bulbs up every second year, throwing away the poor ones, and replanting the others. The variety is Bouquet Parfait, the best I know."

"How many varieties of Michaelmas Daisies do you grow?"

"A hundred and thirty. The favourites include Beaute Parfaite, St. Egwin, Beauty of Colwall, Miss Stopford, cordifolius giganteus, Robert Parker, King Edward, F. W. Burbidge, Esme, ericoides, Golden Spray, diffusus horizontalis, and others."

"What is the scheme of the border under the wall?"

"It is scrollwork. The whole of the groundwork is Pyrethrum aureum. In the raised oval beds, at intervals, are Geraniums King of Denmark and Flower of Spring, tuberous Begonias, and Fuchsias, with dot plants of Iresine Lindenii."

"And what is the extent of this glorious pleasaunce?" I asked, as we strolled outside.

"An acre and a half. The border of flowering shrubs outside, and the wall above, were only planted five years ago. The shrubs are chiefly Lilacs, Laburnums, Rhododendrons, Snowball, Spiræas in variety, Weigela, Berberis Darwinii, Clianthus Dampierii, Japanese Maples, Golden Privet, and Conifers in variety. At the upper end are two remarkably fine Almond trees. The extent of the green running to the lake is between four and five acres. Nothing has been done here to alter the character of the ground, except that it has been levelled. The idea has been rather to preserve it as a landscape scene."

Pausing for a few minutes to notice the Yew

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hedges near the historic tower, with Rambler Roses decorating the gateway, and Ivies closely clipped, as well as the famous Doom Tree mentioned in "Rookwood." "If we took up our position on the west side, to obtain a full view of the effective scheme of bedding in the Dutch garden, is very simple. We use old-fashioned flowers, chiefly for colour effect. The four raised beds are planted with Aubrietia purpurea, with dot plants of the old yellow Valerian Phu-aurea, for the sake of its foliage. The four large centre beds round the fishpond are made up of Veitch's Cuckfield Park Scarlet Salvia, Harrison's White with Yews as decorative standards."

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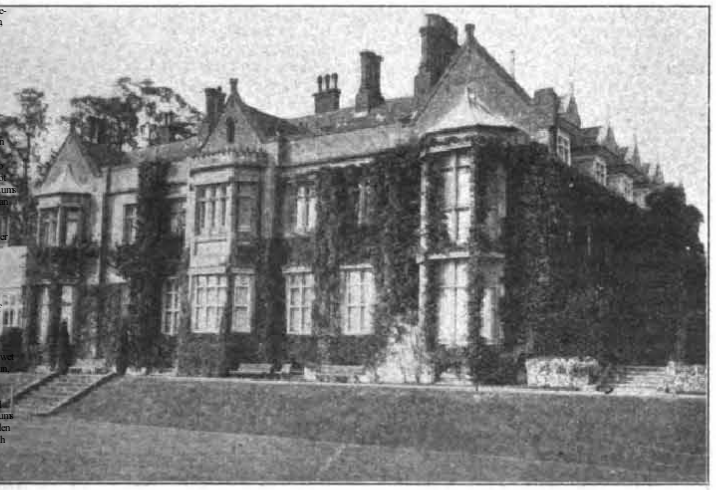


CUCKFIELD PARK, SUSSEX—SOUTH FRONT AND TERRACE.

MacFadyen to tell me the combinations.

"The four large beds in the centre, round the ornamental stone fishpond, consist of Lobelias cardinalis Queen Victoria, and Abutilon Thomsoni, Geranium Paul Crampel, white Begonias, and Lobelias Crystal Palace compacta, with an edging of light green in the shape of Pyrethrum Excelsior. In the four beds to correspond in shape are Calceolarias Golden Gem, a seedling Ageratum, and Lobelias Crystal Palace. Then there are four raised, carpeted beds, which are composed of Pyrethrum Excelsior, Echeveria, Alyssum Lobelias Catherine Mallard, Iresine as dot plants, Alternantheras in variety, with an edging of Nasturtium Scarlet Tom Thumb to harmonise with the scarlet tiles."

"And the four square beds?"

"Two are filled with Matricaria eximia Golden Ball, with dot plants of Perilla nankinensis, and a border of Ageratums; and the other two with Salvias Pride of Zurich, Abutilons as dot plants, and an edging of Lobelias and Geraniums Mrs. Pollock. The two beds close to the Italian marble vase in the centre, with a new variety of Ivy-leaved Geraniums, are occupied with Marguerites, edged by Matricaria eximia Silver Ball."

The Treatment of Matricarias.

"The Matricarias show up remarkably well. How do you grow them?"

"We sow early in spring in a good, light compost of leaf-soil and silver sand, prick off when ready or on showing first leaf. As soon as the plants are about two inches high, we transfer them to frames, or grow them cool until bedding time. Matricarias do not stand wet weather well, but, with plenty of light and sun, they are distinctly valuable. The two corner beds consist of pink and scarlet Ivy-leaved Geraniums; and the two square beds beyond another marble vase, with Ivy-leaved Geranium Madame Crousse, contain Calceolarias Golden Gem Geraniums Flower of Spring, edged with seedling Lobelias."

The Spring Bedding.

"Can you tell me how many plants you use for summer bedding?"

"Twenty-eight thousand. The spring bedding dark red Wallflowers; four beds outside of double white Arabis as groundwork, and Valerians and yellow Tulips as dot plants. The other ten beds are worked out with a groundwork of either red or white Daisies, Aubrietias, Myosotis or Arabis, with dot plants of Wallflowers in variety, Tulips, or Valerians, to complete the colour scheme. There are twenty-two large beds, and though, of course, we alter the flowers are chiefly Campanula pyramidalis, about one hundred and twenty white and blue. We sow in July, and keep the plants for two years. They are not forced on. The batch for next year is now in the kitchen garden. Of course, the contents of the conservatory continually change. The permanent features are the Palms, which include one Kentia canterburyensis, twenty feet high, in a tub, a Tree Fern Dicksonia, Ficus repens and Bougainvillea glabra on the walls, and Plumbago capensis on the roof."

"You train Nasturtiums up poles, I see?"

"Yes, with a groundwork of Calceolarias Golden Gem, Ageratums, Lobelias, and Ivy-leaved Geraniums Flower of Spring, they fill up a corner bed very nicely. Now we come to the great herbaceous border, which is the feature between the mansion and the glasshouses. Here, as you walk along the green sward, you get a peep of the Dutch garden."

"What is the width of the border?"

"Fifteen feet on either side. The varieties are similar to those in the border in the Rose garden, only there are more masses of colour. You may like to note the combination of Larkspurs and Montbretias just beyond, and further on the great avenue of Limes."

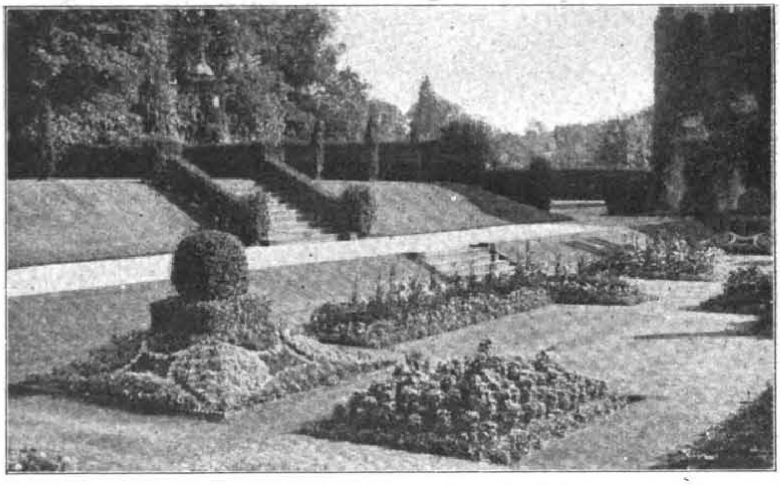
"You use Perillas largely in the long border near the Larkspurs?"

"Yes, as dot plants, with Fuchsias in the centre. There are two varieties of Perillas, nankinensis and laciniatus atro-purpurea. The seeds are sown in March, pricked off into larger boxes as soon as possible, and then potted into small 'sixties.' They are then grown on cool, and planted out when they are about the length of a finger. We pot them the last time in loam, peat, and leaf-mould. This is the compost we use for Chrysanthemums."

New Chrysanthemums.

"How many Chrysanthemums do you grow?"

"Between twelve and thirteen hundred. We fill all the Vineries in November, and show locally. Perhaps you would like to know the names of the best novelties on trial. Here



CUCKFIELD PARK—NORTH TERRACE AND CLOCK TOWER.

Cuckfield Park Scarlet, Harrison's White, and Veitch's Golden Gem. As to the flowers, we keep up the colours for the whole season."

The Culture of Campanulas.

The conservatory next claimed attention, but previously I observed on the south wall which forms the boundary on one side, a display of climbing Roses, and a collection of Portugal Laurels, with several specimen trees, including an exceptionally fine one of the sweet-scented Pine, Douglasii.

"Just now," continued Mr. MacFadyen, "the flowers are chiefly Campanula pyramidalis, about one hundred and twenty white and blue. We sow in July, and keep the plants for two years. They are not forced on. The batch for next year is now in the kitchen garden. Of course, the contents of the conservatory continually change. The permanent features are the Palms, which include one Kentia canterburyensis, twenty feet high, in a tub, a Tree Fern Dicksonia, Ficus repens and Bougainvillea glabra on the walls, and Plumbago capensis on the roof."

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"Just now," continued Mr. MacFadyen, "

"There are two varieties of Pentstemons, Newbury Gem and Downside. They flower from the beginning of July till the frost cuts them off. We take the cuttings from plants not likely to flower. Newbury Gem is used largely for table decoration. With regard to Stocks, they are grown in six colours, and are all of the East Lothian strain. They are sown under glass the first week in January, pricked off into cold frames when ready, grown on perfectly cool, with plenty of air, and planted out in their flowering quarters at the beginning of April. They are preceded by Ranunculus in ten or twelve different colours. The Antirrhinums in this quarter are also grown from cuttings, which are inserted in light soil in a cold frame in September. After they are rooted, air is admitted freely, and they are planted out about the end of March."

Entering the range of houses, we started with one devoted to Melons, in which, at the time, were a number of Poinsettias.

### How to Grow Poinsettias.

"These," said Mr. MacFadyen, "and the white variety, with Gloire de Lorraine Begonias, are very useful in the dull time of the year. The cuttings of the Poinsettias are inserted in a brisk bottom heat in April, and grown in warm frames until potted into 'forty-eights,' when they are hardened off and grown for the remainder of summer and autumn in a cold frame. I then put them into their flowering quarters, and increase the heat by degrees until they are in full flower. The Begonias are grown at all times in a brisk heat. Then we have a large batch of Scutellaria Mociniana for summer flowering. This beautiful stove plant is too little grown, but well repays the labour devoted to it. The flowering season can be prolonged by different series of cuttings, and the bright scarlet flowers are most beautiful."

"In the stove I see you go in largely for Calanthes."

"They are a great feature here, because they are so useful for house and table decoration when other flowers are scarce. These, and Chrysanthemums, are favourite flowers of my employer, and I naturally endeavour to make the most of them. As to the cultivation of Calanthes, after flowering, I shake the bulbs free from all soil, and thoroughly harvest until the middle of March. Then I pot them all up in a mixture of rough peat, fibrous loam, dried cow manure, wood-ashes, and charcoal. I water very carefully until they are thoroughly rooted, when water can be given freely. Stove temperature suits them very well, when there is plenty of moisture in the air. They should at all times be shaded in bright sunshine. The varieties grown are C. Veitchii, Harrisii (pure white), Vestita, Vestita rubra oculata, and Regnerii. On the stage here are some seedling Amaryllis, all hybrids, and on the other side Crotons. We are just hardening off Dendrobiums and Phalænopsis Schroederii. Our Pancratiums fragrans are rather a feature. They throw out six spikes of white bloom, and if they did not take up so much room, would probably be much more widely grown. They have to be kept under the same conditions for a whole year."

CUCKFIELD PARK—THE CONSERVATORY IN SPRING.

"You have a considerable number of Cattleyas in your Orchid house."

"All the Orchids are grown for cutting, and include a few varieties of Cattleyas, Epidendrums, Cypripediums grande and insigne, and Oncidiums in variety."

### Melons in Variety.

"Do you grow many varieties in your Melon house?"

"Yes, we have Veitch's Invicta, Blenheim Orange, Gunton Orange, Gunton Scarlet, Supreme, Hero of Lockinge, Early Favourite, and Middlesex Hero. The first crop yields about sixty fruits from twenty-four plants. The second is not quite so good, but we get about forty fruits then. In the Cucumber house we grow Challenger and Improved Telegraph, and in the Tomato house, planted in boxes, Large Red, Perfection, The Hastings, Lister's Prolific, Conqueror, and Sunny Bank. We grow Winter-flowering Carnations in this house, and they do very well. In the Vineries, which have an outside and inside border, we have in succession Black Hamburgh in the early house, from which we pick between thirty and forty pounds; in the mid-season, Muscats and Madresfield Court chiefly, from which we cut one hundred and forty pounds; and a late house with Buckland's Sweetwater, Black Alicante, and Black Hamburgh."

"What are the chief features of your kitchen garden, where I see your Chrysanthemums are lining the walks?"

### Apples and Pears.

"Apples on bushes and a few old standards come first. Warner's King, Lane's Prince Albert, King of the Pippins, Ecklinville Seedling, Seaton House, Lord Derby, Lord Suffield, Bramley's Seedling, Baumann's Red Reinette, Pott's Seedling, Lord Grosvenor, Beauty of Bath, Worcester Pearmain, Keswick Codlin, Duchess of Oldenburgh, Flower of Kent, Stirling Castle, Cox's Orange Pippin, Chelmsford Wonder, and Albury Park Nonsuch. There is a sprinkling on the other trees, but those I have mentioned are remarkably good this year."

"And Pears?"

"The best this year are as follows:—Madame Treyve, Emile d'Heyst, Louise Bonne of Jersey, Beurre Diel, Charles Ernest, Marie Louise, Pitmaston Duchess, Williams's Bon Chretien, Clapp's Favourite, Marguerite Marrillat, President d'Amanville, Beurre Fouqueray, Glou Morceau, Le Lectier, Beurre Bosc, Beurre d'Anjou, Princess, Beurre Bachelier, Bergamotte d'Esperen, and Conference. With regard to Plums, the cooking varieties are of good quality this year, and we have a good crop of Belle de Louvain, Victoria, Pond's Seedling, Monarch, White Magnum Bonum, Golden Gage, Coe's Golden Drop, Jeffersons, and Denniston's Supreme. All these varieties are grown on the walls."

"You grow Peaches under glass?"

"Yes, in an unheated and a heated house. The latter, you see, is quite small; but I have picked over two hundred fruits this year. In the unheated house, one hundred and twenty feet long, where I begin to pick at the end of June, we had between two and three thousand fruits last year. We sent two hundred Peaches a week to Scotland, where the family are in residence, so that we do not lose any of the fruit when it is ripe."

"Do you care to say anything about Strawberries?"

"They do well in this ground, but require strong feeding. The principal varieties are Royal Sovereign, Kentish Favourite, The Laxton, Givon's Late Prolific, and George Monro."

"And about fruit culture in general?"

"My entire attention is devoted to keeping fruit trees within bounds, and encouraging young, fibrous roots. This can only be achieved by root-pruning, done frequently and well. It must be supplemented by fertilisers, to suit the requirements of the soil."

### Vegetable Cultivation.

"What is the nature of your kitchen garden soil?"

"It is light, with hard gravel subsoil. Therefore, for all vegetable crops, I thoroughly trench the ground, adding large quantities of stable manure. This mode of culture insures success. There being the greatest demand here for young and tender vegetables, especially in the Brassicas and salads, I am rather inclined to plant closely. Peas, Beans, and Celery are grown in quantities, but we buy the whole of our Potatoes."

"Where did you begin your gardening career, Mr. MacFadyen?"

"I first started gardening at Killellan Gardens in Argyllshire for three years; and was journeyman in other places. Nearly all my experience has been in Scotland. I was four and a half years at Macharioch, the late Duke of Argyll's Kintyre residence, and between three and four years foreman at Kelly House, Renfrewshire. Then, for the first time, I became head gardener, and had charge for two and a half years of the gardens at Glen Cruach, Perthshire, and almost a year with the late Mr. John Scott, C.B., Halkshill, Largs, Ayrshire, leaving there to take up the same position here eight years ago. With regard to showing, which you mentioned just now, I have taken prizes at Brighton and Edinburgh for indoor and hardy fruit and herbaceous plants, and was always in the first three for Peaches and Grapes; but since they ceased to hold the Brighton show late in August, I have given up exhibiting."

ALFRED WILCOX.

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THE gardens of Sir Daniel Gooch, Bart, at Hylands Park, Chelmsford, will be described in next week's interview.

THE winter show of the Perpetual Flowering Carnation Society is to be held in the Royal Horticultural Hall, Vincent Square, S.W., on Tuesday, December 13th. Schedules and particulars may be obtained from the hon. secretary, Mr. Hayward Mathias, Lucerne, Stubbington, Fareham, Hants.

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# THE GARDENS OF SIR CHARLES LOWTHER, BART.

## Interview with Mr. Macfarlane, at Swillington House, near Leeds.

THE fine old seat of Sir Charles Lowther, in Yorkshire, is not situated sufficiently far away from Leeds to escape the effects of the smoke of that thriving city, but the scenery in the immediate vicinity remains unspoilt. Visiting the gardens at Swillington House by the courtesy of the owner on a pleasant afternoon in November, when the prospect was not obscured by mist, I was much impressed with the admirable manner in which they are kept, and with their numerous features of interest. On my arrival, Mr. Macfarlane, the gardener, mentioned that the conditions prevailing precluded him growing certain plants.

"Then you have to do the best you can in the circumstances?" I said, as we proceeded down the avenue by which the mansion is approached from the principal lodge.

"Certainly. Circumstances — chiefly the chemicals afloat—prevent us from growing Violets, Cabbages, and Lettuces in winter, though, as you know, in normal conditions they are not difficult to cultivate successfully."

"How about Rhododendrons?" I asked, as we pursued our way past a pretty summer-house overlooking a beautiful lake, horse-shoe shape, which used to be the river Aire.

"Ponticums thrive fairly well, though there is no peat in the soil, which is all clay subsoil. Hollies do remarkably well, and many other things which are not affected by the action of chemicals."

"How often do you have your large and well-kept lawn mown?"

"The mowing occupies three men four days in the week."

"It makes a striking contrast to the fine old stone mansion."

### The Terrace Bedding.

"You may like to know that the bedding on the south side of the mansion is a new departure. It used to be Italian, but last spring, for the first time, we laid out a new design in grass, doing away with the Box edging."

"Do you plant for spring?"

"No, because the family are not in residence in the spring. In summer, the main feature of the beds will be Geraniums Paul Crampel, Rev. Atkinson, Flower of Spring, Verona (gold and pink), Crystal Palace Gem, Stanley White; and Begonias, crimson and orange, singles. They will be dotted with Eucalyptus, Kochias, and Fuchsias, but no very tall plants can be used, owing to the force of the west winds. The groundwork is composed of Violas, with a border of Lobelia Mrs. Clibran."

"I should like to know the varieties of Fuchsias which suit the position."

"Charming, Mrs. Marshall, and General Roberts. The Violas are Bridegroom (lavender), Archie Grant and Roy Mann (dark purple), Bridal Morn (blue), Virgin White, Fighting Mac, and Ardwell Gem (yellow). This year I am trying Diana, a pretty, pale blue. We get a very telling combination of colours, and the different shapes of the twenty-three beds, square, oblong, round, and shield shape, show up well when they are filled.

"In summer," continued Mr. Macfarlane, "we stand nearly forty vases out in front of the mansion, using Geranium Henry Jacoby—the Ivy-leaved varieties do not flourish—and Lobelia Barnard's Perpetual. As a rule, these are in flower until October."

### A Famous Hedge.

The entrance to the house faces east, and here there are no flowers, but, passing the handsome stable, we arrived at one of the most unique and splendid hedges in the North of England.

"It is composed of Thorns and Beeches, which were planted about a century ago. The hedge

**Mr. Macfarlane.**

is quite twenty-three feet high, and five feet wide at the top. Originally there were only Thorns, but the Thorns began to decay at the bottom, and Beeches were put in. The Beeches now predominate."

"How often is it clipped?"

"Once a year in September, when it takes a considerable time. The clipping can only be done by means of a stage fixed on a waggon. In spring the dark foliage of the Thorns makes a pleasing contrast to the light green of the Beeches. On the opposite side are several good specimen trees."

"Including a noble purple Beech."

"Yes; it branches down to the ground, and, in summer, picnics are held under its shade. Then there are two fine specimens of Tulip trees; while the border overshadowed by the purple Beech contains a few flowering Cherries, Rosa rugosa, and Golden Privet."

Crossing over to the west side, I observed two large beds planted with Wallflowers, and Mr. Macfarlane said,

"This is the exception to the rule about spring bedding. The varieties are Vulcan, General Tom Thumb, and Primrose Dame. Later on we put in mixed Geraniums. The other small bed is filled in the summer with Geranium Verona and Viola Bridegroom, a charming combination."

"Here, too, Cedrus deodara is doing well."

"Yes, but the fine varieties of Conifers fail; the smoke destroys them—not only the smoke of Leeds, but that of the Woodlesford coal pits."

### An Autumn-flowering Border.

"Evidently the smoke spares your Roses," I rejoined, as we turned our attention to the portion of the pleasure grounds facing south.

"You refer to the Ramblers growing up the pillars. This long border used to be divided into Rose beds, but, in the spring of 1910, I started autumn-flowering plants, with the Roses trained in festoons behind, backed by Hollies and Yews. The six varieties of Roses are white Dorothy Perkins, Hiawatha, Electra, Crimson Rambler and Lady Gay."

"And the autumn-flowering plants in front?"

"Michaelmas Daisies in variety, Chrysanthemums maximum and King Edward, Helenium Magnificent, striata, and autumnalis, Helianthus Mrs. H. J. Moon, Golden Rods, and Tritomas. In front of these are Œnotheras, the finest of the Veronicas, V. longifolium, subsessilis, very dark purple, with long spike; Astilbes Davidsii and grande; Montbretias and Fuchsias; Campanula carpatica Riverslea; Pentstemon Newbury Gem, which are only just ceasing to flower; Geums Heldreichi splendida superba; Lychnis varicosa splendens; Chrysanthemums of the Masse family; Asters Enchantress, small-flowered and branching right down to the ground; A. cordifolia elegans, very fine; and A. F. J. Raynor, rose colour."

"What is your system of planting the wide border facing the Roses?"

"In clumps, which consist mainly of Doronicums, Pyrethrums, Phloxes, Iris germanica, Pæonies, Michaelmas Daisies, filling up with Cactus Dahlias, and a few of the Pæony-flowered, which I think are exceptionally fine for cutting."

### Pears as Cordons.

"What is the size of your kitchen garden?" I inquired, as we looked at some cordon Pears on one of the walls.

"Three acres. With regard to these cordons, I commenced two years ago taking out the old Pears and Apples on the walls, and putting cordons, chiefly Pears, in their places, with the result that we get better crops, and the trees yield more quickly. I am so satisfied with the change that I am planting more of the cordons, and by degrees I hope that they will entirely supersede the old trees. The varieties of Pears include Bon Chretien, Superfin, Emile d'Heyst, Marie Louise, Charles Ernest, Marguerite Marillat, Doyenne du Comice, Glou Morceau, and Easter Beurre."

### How Black Currants are Cropped.

Noticing a plantation of Black Currants, I asked if the mite invaded Swillington, and Mr. Macfarlane replied:

"At one time the mite was a terrible pest,

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and I determined to get rid of the trees. So I burnt them all, and six years ago I planted Boskoop Giant. Since then I have not seen any sign of the mite. The trees are cropped in front, not on the stem like Red Currants; and, as you see, the young growths are very strong."

"When did you plant your border of Gooseberries under the north wall?"

"Four years ago. The varieties are Langley Gem, Langley Beauty, Keepsake, Whitesmith, Whinham's Industry, Warrington, and May Duke. I train Warrington and another variety — Ashton Red—on the wall to use for dessert purposes, and to protect the whole of the Gooseberries I bring the net from the wall over them. The fruit on the wall is gathered for the table as late as September."

"You have late Currants, too, on the same principle?"

"Yes, La Hative and Fay's Prolific do well on the wall; and Raby Castle, La Versailles, and The Comet supply fine fruit on the bushes. Under the wall, in the border, we get splendid crops of Raspberries, Northumberland Fillbasket, and in this case also I make use of the net from the walls."

"What about Plums?"

"The only varieties that do well are Jefferson, Victoria, and Coe's Golden Drop. There are a few Plums on the wall outside the kitchen garden, and a few Sweet Cherries; while on the other side are Apricots Moor Park and Shipley, but they are not particularly successful."

Swillington House—The Residence of Sir Charles Lowther.

## Yorkshire Apples.

"But the feature is the Apples as standards?"

"With old varieties of Gooseberries planted underneath. They have been here from thirty to forty years, and the varieties are Hedgehog and Gloucester Green. Some of the Apple trees have been planted many years, but the younger I put in seven years ago."

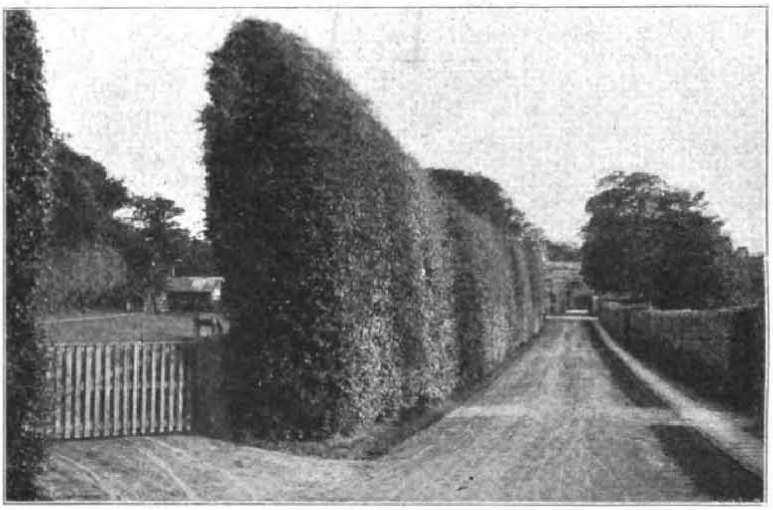
"While we are speaking of hardy fruit, you might tell me what does well in the orchard."

"One of the best Apples for keeping is a Yorkshire variety called Cock Pit, small, but an excellent cooker. Another is the Lady Finger, a good cooker and admirable cropper. This name is purely local. In front of the Apples is a row of Pear trees, and the adjacent wall I have just cleared to plant more cordon Pears. I removed the soil three feet from the wall, two feet deep, and wheeled it into the garden, bringing the soil from the latter here. Change of soil is very important."

## Peas and Potatoes.

"Perhaps, before we look into the houses, we had better note a few of your big stock of vegetables."

"We ridge up Peas on this heavy soil. Picking begins at the commencement of June, and goes on until October 31st. The first batch I force in pits and plant out, the varieties being Earliest of All and Chelsea Gem. Other early varieties are William I., Thomas Laxton, Gradus, and Edwin Beckett. For main crop I have Alderman, The Bell, and Gladstone, finishing up with Autocrat. Celery I grow two rows in the trench, Manchester Red, Bibby's Defiance, and Standard Bearer. As to Potatoes, so long as I can get a good reliable succession, I prefer to have only a few varieties. These are Midlothian Early, Webbs' Colonist, Dalmeny Radium, and King Edward VII. Broad Beans I raise in boxes and plant out; the variety is Beck's Green Gem. Later I grow Smith's Longpod, and Green Windsor. Kidney Beans



A Fine Holly Hedge at Swillington House.

are Ne Plus Ultra and Canadian Wonder; the Scarlet Runners, Champion and Prizewinner."

## A Transformed Vinery.

Entering the houses, Mr. Macfarlane said,

"This used to be a late Vinery. Two years ago I began converting it into an early Peach house, with Camellias on the back wall, chiefly alba plena and Jubilee Pink. The latter were planted thirty-seven years ago, but the Peaches, of course, are quite new—Duke of York, Grosse Mignonne, and Peregrine, and Nectarines Early Rivers and Lord Napier. There is no doubt that this house is better suited for Peaches than Grapes, but the iron house next to it, the late Vinery, serves us very well, indeed. There are only outside borders, the latter being covered with leaves. The varieties are Lady Downe, Mrs. Pince, Alicante, Mrs. Pearson, and Alnwick Seedling. The last is exceedingly good when I can get it to set well. In the other Vinery are Black Hamburgh and Muscat Hamburgh, both of which crops satisfactorily."

"You have Primulas and Cyclamen in this Vinery."

"We go in rather largely for Primulas, growing the white and mixed stellatas for cutting; P. sinensis, P. Crimson King, P. The Duchess, and P. White Perfection; and the obconica section. No one here suffers from the poison of the foliage. The Cyclamen are all Sir George Cooper's strain, from which we get a fine selection of colours."

"There is yet another Vinery?"

"This is the early one, and was only planted four years ago. The varieties are Black Hamburgh and Foster's Seedling, and we had some fine bunches this year of both. We start cutting Grapes in June, and keep up a succession until Christmas. The next house was formerly devoted to Peaches, and was only finished in July as a plant house; in fact, we had a crop of Peaches this year. I am just beginning to go in for Tree Carnations, starting chiefly with Britannia. The other varieties are Enchantress, Mrs. Lawson, Pride of the Market, Duchess of Portland, America, Harlowarden, Mrs. Miller Mundy, and Mrs. H. Burnett."

"You have a large number of Chrysanthemums?"

"Only the Japanese in large blooms. Of these we grow upwards of forty varieties. Of bushes for cutting we grow about fifteen varieties. Double Zonal Pelargoniums are rather a feature, the six best varieties being Lord Kitchener, Raspail Improved, King of Denmark, Bastien Lepage, Mrs. Brown Potter, and La Lawrence."

"You have more Peaches in another house?"

"This is only the second house, the varieties being Royal George, Dymond, Stirling Castle, Violette Hative, and Nectarine Rivers' Orange. The back wall of this house is planted with Roses for winter flowering. Then, in the late Peach house, we have Barrington, Walburton Admirable, Late Devonian, and Exquisite, a late variety with golden skin. The Nectarines in this house are Dryden, Downton Improved, and Pineapple."

"Where do you grow your Tomatoes?"

"In pits. We cannot grow them out of doors.

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varieties are Carters' Sunrise, Up-to-Date, Veitch's Invicta, and Ruby Cluster, a very good variety."

### Sweet Peas Early and Late.

"You raise Sweet Peas also in pots?" "Yes, and plant them out, sowing some in October, and others late in February." "Do you force any Strawberries?" "No, but I omitted to say that we grow outside Royal Sovereign, President, Dumbarton Castle, and Givon's Late Prolific. I try new varieties as they come out, but these are the four best I have in the garden now. Melons and Cucumbers are grown in the pits, to start with, but there are three Melon houses. The varieties are Queen of the West, Royal Sovereign, and Sutton's Triumph. The only Cucumber is Telegraph."

### Stove Plants in Variety.

"With regard to other plants under glass," continued Mr. Macfarlane, "you see we have a batch of Eucharis in flower; Begonias Gloire de Sceaux; Orchids, Cypripedium insigne, Calanthes, Cœlogyne cristata; a few Roman Hyacinths, a few Narcissus Paper-white, Tulips, and Lilies of the Valley are also forced. In the stove, Begonias, Gloire de Lorraine, Turnford Hall, and Rothschild are the principal feature. I find there is more colour in Gloire de Lorraine, but that Rothschild is a larger flower. Other stove plants include Dracænas in variety, Pandanus, Palms, Abutilons, and a few Rhododendrons, of which Lady Alice Fitzwilliam and Gibsoni are the best."

"How long have you been gardener at Swillington House."

"Eight years. I was previously gardener at Oulton Hall for three years, where I put in a new range of houses and improved others. For six years I was at Stapleton Park, Pontefract, and for three at Norman Court, Salisbury. The first head place I ever had, and kept for seven years, was at Balfour House, Fifeshire, where the Balfours originated."

ALFRED WILCOX.

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NEXT week's interview will contain a description of the gardens at Headley Park, Epsom.

# Pot Plants from Seed.

A NUMBER of interesting and beautiful plants suitable for window and room decoration can be raised from seed early in the year. No costly heated greenhouse is needed, for the entire work can be done with a small propagator and a pit-frame. The last is so splendidly useful to the gardener that one should be constructed at once by every cultivator of flowers.

### How to Make a Pit.

Dig a 4-ft. pit, about four to five feet long, and three feet wide, in the sunniest part of the garden; this will be either in the open, or near a wall facing south or south-east. Fill up the pit two feet with half-spent horse manure, banked tightly together, and then cover the top with a light or two from a frame. If no light sashes be spared, some laths of wood, three or four inches wide, can be laid across the pit, and sheets of rough glass, weighted with bricks, can be laid upon these. The manure will create a genial warmth for some time; then part of it can be taken out and more added, to renew the temperature.

Another plan is to stand a small oil-lamp in the pit, with a tall chimney that is just beneath ventilation between the lights or panes of glass. All the rest of the glass can be covered by mats in frosty weather, removable, of course, during sunny hours of day.

A cheap propagator is always a good investment, for marvellous quantities of pans of seed can be placed in rotation in it until germination ensues, and removed to the pit as soon as the seedlings are well up. When the young plants are yet more advanced, they can be grown on in sunny windows. All that is necessary for success is to choose the right kinds of seeds to sow.

### Choice Plants to Raise from Seed.

I have never failed with Primula obconica. It is a far hardier plant than is generally recognised; indeed, it can even be bedded out in summer in warm gardens. Few amateurs know how many sorts of seed can be bought. There is P. obconica grandiflora Dextra, large blooming; alba, nearly white; cœrulea, almost blue; carminea, almost red; sanguinea, the brightest red of all; Kermesina, a carmine shade; and rosea, pink. The only persons who should fail to sow this lovely, constant-blooming Primula are those whose skins are extra irritable.

Two beautiful Tobacco plants, Nicotianas affinis and suaveolens, can be recommended. The former is well known, the latter is more shrubby in growth, and has an especially deli-

**A Walk in the Grounds of Swillington House.**

cious scent by night. These grow very rapidly from seed, so are soon ready for window adornment, but must never suffer for want of water.

Lobelia Hamburgia is an elegant trailing variety, fit for pot culture, the specimens looking charming when hidden in moss in hanging baskets. It is quite easy to grow, as is also the half-hardy annual, Oxalis rosea, which is nearly always in blossom as a window plant.

The Summer Cypress (Kochia trichophylla) is an interesting plant, shaped like a bushy Fir, all of feathery green until autumn, when it becomes gorgeously tinted with orange and carmine. In propagator heat seed germinates quickly.

Willow-leaved Beet (Beta salicifolia) is one of the most graceful pot subjects, of brilliant crimson foliage. Abronia umbellata grandiflora is a peach-rose, half-hardy annual trailer, with glaucous foliage and sweet scent, an easy plant to succeed with, and one certain to win admiration.

DUNHAM.



WHERE a gentle warmth is available in the greenhouse, a sowing might shortly be made of Lobelias, which will make fine, sturdy plants available for the borders later on. Use light, sandy soil, prick off as soon as the seedlings can be handled, and harden off before planting out.

# Inexpensive Flowers for Kitchen Gardens.

IN nine cases out of ten the vegetables can be bordered by flowering plants without sustaining any injury, thereby enabling the garden-owner always to have plenty of cut blossom at his command, as even during winter a few handlights will suffice to keep up a stock of Christmas Roses, Violets, Violas, etc., and promote an earlier crop of Crocuses, Tulips, Hepaticas, and Primroses. To plant these kitchen borders cheaply and effectively is quite easy.

### Rich Masses of Bloom.

Canterbury Bells occur to mind at once as pre-eminently suitable—they give such rich masses of bloom, and cost but a trifle by the half-hundred. The single and double pink, white, and mauve should be obtained, as well as the purple and blue. Planting can be done at any time now, except during severe frost, and the earlier the better. Campanula persicifolia alba is a perennial Bell-flower, of great usefulness, either in blue or white. A few plants can be increased plentifully by division after a year's growth.

Iceland Poppies, too, are cheap, first-class for gathering, and sow themselves liberally afterwards; also, they are so slender-stemmed and light-growing that they can be placed right up to the more tender vegetables without the least risk. London Pride looks very pretty alternated with these Poppies, or used to edge their stretch of border. Jacob's Ladder (Polemonium cœruleum), though one of our hardiest perennials, increases greatly from self-sown seed, and hybrids vary in shades of lavender-blue. The white Jacob's Ladder is a nice vase flower.

Sweet Williams also possess the merit of self-production, so that a small sum spent upon a few plants will result in a great sufficiency ere long. The evergreen foliage has a pleasing look all the year round, just as has that of the Primula tribe, for which reason Polyanthuses, Primroses, and coloured Cowslips should appear in great numbers. Honesty is useful in moderation, and, like Sweet Rocket, another self-propagating biennial, should be first bought in the white as well as the purple variety.

### Hiding the Rubbish Heap.

Foxgloves of white and purple are too vigorous-growing for small borders, and their roots are poisonous, but they often prove useful to mass round a rubbish heap or manure pit.

The Scarlet Geum is seldom out of bloom from May to December, and its leaf tufts are attractive, yet this is one of the least expensive plants. Galega officinalis, lavender or white, miniature Sunflowers, the giant blue Knapweed, Centaurea montana, the rosy, Thistle-like, Fern-leaved Centaurea dealbata, are especially excellent.

Michaelmas Daisies should be purchased not by name, but as mixed dwarf varieties, for economy's sake; then they will not overshadow the ground too much, but prove most useful. Columbines will do well for the semi-shady places, though the yellow Aquilegia chrysantha, when put in sunshine, is as long-blooming as Geum coccineum.

For wide spaces, perhaps around Vegetable Marrow mounds, on north sides, or against Rhubarb plantations, Chrysanthemum maximum and Golden Rods in combination give a delightful gold and white show; Doronicums and Alyssum saxatile might fill up the border before them. Many perennials, such as Geums, Pansies, Iceland Poppies, Snapdragons, and Achilleas, can be seed-raised in boxes under glass in early spring, either with or without heat; and though much bloom cannot be looked for the first season, the effect in a following one will be magnificent. This is the best way to obtain hybrid Pyrethrums, which may begin to flower in autumn, and are too expensive to stock kitchen garden borders with as bought plants.

HOBBY GARDENER.

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Notes from the Roy. Bot. Gar. Edin., v. 3



## Robert Menzies.

On M'Coig's death Robert Menzies was appointed his successor. Of him we can tell little. He was probably a native of Weem in Perthshire, and was elder brother of Archibald Menzies, a distinguished botanist and traveller, who, as a young man, was also employed in the Botanic Garden, and apparently under his brother.[1] The Pipe Roll for the later years of the eighteenth century is missing from the series, and therefore I am not able to determine the exact date of the death of Menzies, but from a statement by Dr. Neill[2] we know that his successor in the Garden was appointed in February 1800.

## John Mackay.

The successor of Robert Menzies was John Mackay, brother of James Townsend Mackay, the distinguished botanist whose name will always be associated with the investigation of the flora of Ireland. John Mackay's name is familiar to British botanists, for it occurs frequently in the pages of British floras, but we depend for our knowledge of the incidents of his career upon the following memoir, from the pen of Dr. Neill, which appeared in the "Scots Magazine" for 1804:—

### SHORT BIOGRAPHICAL MEMOIR OF THE LATE MR. JOHN MACKAY, SUPERINTENDENT OF THE ROYAL BOTANIC GARDEN AT EDINBURGH.

Almost two years have elapsed since the death of this exeellent young botanist; and hitherto no account (as far as I have observed) has been given to the public, of his professional excellence, the progress he had made in botany, and the services he rendered to that science, or of the many amiable qualities of his personal character.

The writer of the following short memoir is conscious of his inability to do justice to the subject. But however imperfect his

[1] The biographical notices of Archibald Menzies in Proc. Linn. Soc., vol. i. (1849), p. 139, and in the D. N. B., give in error "William" as the name of this brother who was Principal Gardener of the Royal Botanic Garden.

[2] See below in the memoir of John Mackay.

account may be, he is certain that it will be gratifying, especially to Mr. Mackay's *botanical* friends, to see some faint memorial of his merits put upon record. The writer had the pleasure of living in habits of intimacy with him during the last three years of his life, and has since had the advantage of enjoying the friendship and confidence of his surviving brothers.

A life so short, and spent in study, cannot be expected to afford incidents for a formal or extensive biographical narrative. Mr. Mackay, indeed, never acted a conspicuous public part; he made no voyage of discovery, he published no botanical work. He was cut down almost at his very entrance into public notice. The materials therefore being scanty, the narrative must appear simple and concise, and not calculated to excite general interest. The most promising traces of future eminence will, however, be discerned, in the earliness of his passion for botany, his zeal in traversing the mountains of Scotland in search of plants, his uncommon assiduity in every pursuit he undertook, and the acuteness of his discriminating powers, as testified[1] by the most competent of judges, Dr. JAMES EDWARD SMITH, the President of the Linnean Society.

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Mr. JOHN MACKAY was born at Kirkcaldy, December 25, 1772. His father, Mr. Hugh Mackay (who survives him,) is professionally a gardener. His mother (who died many years ago) was Margaret Mitchel, from Auchinleck in Ayrshire.

While John was yet a boy at school he discovered a strong predilection for the cultivating of plants. Even at the age of 14 he had formed a very considerable collection of the rarer kinds of garden and hot-house plants. This was at Inveresk, whither his father had removed.

In the beginning of 1791 young John was placed in Dickson and Company's[2] nurseries, Leith Walk, unquestionably the most extensive and best conducted in Scotland, and a most excellent school for a young botanist.

[1] In Sowerby's "English Botany."

[2] George Don, hereafter referred to, was acquainted with the Dicksons. See Gardiner, Flora of Forfarshire, 1848, Introduction, p. xii.—*I. B. B.*

During a part of the summer of this year he assisted the late Mr. Robert Menzies (brother to Mr. Archibald Menzies, travelling botanist to the King) in serving to the Professor and students the plants required at the botanical lectures in the Royal garden Edinburgh. I can state, on good authority, that, in the short space of six weeks, this hopeful young botanist actually collected specimens of all the plants then growing in the botanic garden. For this purpose he rose very early in the morning; in this pursuit he spent the greater part of the different hours of remission allotted for meals; and at night, after all the fatigues of a long summer day, assorted his specimens by candle-light.

After having remained some time in the nurseries of Messrs. Dicksons, Mr. Mackay engaged himself at Hopetoun House, the fine garden and pleasure-grounds of which were then (as I believe they still are) under the care of Mr. Hosey. Here he first remarked plenty of the euphorbia ezula in the belts of planting near the palace, and the silene nutans on the banks near the frith. On the opposite shore, also, he at this time found the rare astragalus uralensis. While he remained at Hopetoun Mr. Mackay spent two hours every evening with a teacher of mathematics at Queensferry; and by this sedulous application, he made very considerable progress in that science.

Towards the close of 1792, he left Hopetoun, having been invited by Messrs. Dicksons to act as clerk to their nurseries,[1] and to take the charge of the more curious plants.

It was in the course of the next year[2] that he acquired, when at Glasgow, the acquaintance of Mr. George Don, well known amongst naturalists for his zeal in practical botany. Mr. Don was then by profession a clock and watch-maker, but spent generally about two days in the week in exploring the hills,

[1] His employment here led to his occasional designation as nurseryman by his correspondents in the South.—*I. B. B.*

[2] Don, in a letter to Mr. Winch, gives the date as 1791. See Memoir of George Don in these "Notes." If Mackay had been connected with Dicksons' nurseries from 1791 there would probably have been opportunities of his meeting Don before 1793, seeing that Don also was acquainted with the Dicksons, and the date 1791 given by Don is possible and not unlikely. —*I. B. B.*

rocks, and dales of his neighbourhood. He at this time[1] accompanied Mr. Mackay to the Alps of Scotland. They spent several days in exploring together the great mountain of Ben-Lawers in Bredalbane. Here Mr. Dickson of London had already found the acrostichum ilvense, lichen croceus, and fusco-luteus, &c. all of which occurred to our travellers. They likewise picked up carex rigida, originally observed by Dr. Walker, late Professor of Natural History at Edinburgh. They found, also, several plants of the very rare gentiana nivalis; and the arenaria saxatilis and cerastium alpinum were for the first time added to the British Flora by this expedition. On this occasion, also, Mr. Don discovered a new species of grass, which has not yet been scientifically described: it seems to rank under the genus *elymus*, and he has given it the trivial name of *alpinus*. Of this rarity he could find only two plants.

At Blair-in-Athol our botanists attracted the notice of the D[uke] of Athol, and his sister, Lady Charlotte Murray, who has rendered herself celebrated as a botanical writer. The Duke invited them to botanize Glen Tilt, and gave orders for their accommodation at his Grace's hunting lodge in that wild district. Upon a high rock immediately opposite the lodge, they found, within a narrow space, many rare alpine plants; dryas octopetala; salices lapponica, reticulata and herbacea; pyrola secunda; carices capillaris and atrata; azalea procumbens; gnaphalium supinum; and saxifragæ oppositifolia and stellaris.

Next summer it was concerted between our botanists that they should visit some of the Western Islands of Scotland in company. Mr. Don accordingly, at the appointed time, set out from Forfar (which had now become the place of his residence, and where he cultivated an immense variety of the rarest hardy plants[2]:)

[1] Although Dr. Neill uses this indefinite expression, we have confirmation of the date 1793 in Don's statement that he gathered Arenaria rubella in this year in company with Mackay. See Garry, "Notes on the Drawings for English Botany" in Journal of Botany, April 1903, p. 35.—*I. B. B.*

[2] If Dr. Neill's date be correct we have the time of Don's migration from Glasgow to Forfar fixed as the end of 1793 or beginning of 1794. See further regarding this on p. 61 of these "Notes."—*I. B. B.*

Mr. Mackay was to meet him; but being by some means detained a few days, they missed each other. Mr. Mackay, however, found no difficulty in tracing Mr. Don's route; the great length of his botanical spade,[1] and the singularity of his occupation in clambering rocks and mountains to get at *weeds*, having arrested the attention, and excited the astonishment of the honest Highlanders. Altho deprived of the advantage of mutual communication, several rare plants rewarded their labours. Besides most of those previously discovered by Dickson of Covent Garden in 1789 and 1790 (such as Draba stellata, phleum alpinum, cherleria sedoides, &c.,) they found several species new to the Scottish Flora, as juncus castaneus (Jacquini) and juncus biglumis, Saxifraga cernua, and Festuca calamaria.[2]

This journey occupied sixteen weeks, which Mr. Mackay spent in unwearied botanizing. On the Highland mountains, when far from an inn, or other habitation he sometimes passed the night in a deserted *shealing*,[3] a temporary hut that had been raised by the native Highlanders some former season. In the Island of Sky Mr. Mackay discovered a scirpus, intermediate between S. pauciflorus and palustris, and which has received the name of *multicaulis*.[4]

The investigation and assortment of the ample stores of cryptogamia which he accumulated in this journey, occupied him during the evenings of the following winter. The mosses and lichens were all examined by candle-light, after the business of the day; and too often were his investigations pursued through the greater part of the night.

[1] An ash rod, fifteen feet in length, with an iron spaddle fixed to its end. The spaddle has a notch, which serves as a hook to pull down plants from inaccessible crevices in rocks.

[2] Statistical Account of Scotland, parish of Kenmore, by the Rev. Colin Macvean. The festuca calamaria is the non-descript grass referred to by the Reverend Author.

[3] During winter the Highlanders are collected into villages in the valleys; but they remove to the mountains every summer, in order to pasture their cattle. The whole family migrates: it is called the *summer flitting*. A temporary hut is reared on the hills: this hut is called a *shealing*. The term *shealing* is often used, also, to denote the range of summer pasture.

[4] Sir James E. Smith in Flora Britannica, I. (1800), p. 49, gives 1794 as the date of the finding of this plant, and this agrees with Dr. Neill's date of this second Highland excursion arranged between Mackay and Don.—*I. B. B.*

In the management of Messrs. Dicksons' nurseries, Mr. Mackay made great progress in the knowledge of the culture of plants; nor was he inattentive to matters more strictly botanical. He formed, in a plot of ground in the nurseries, a most extensive arrangement of hardy herbaceous plants, with numbered tallies. He made a similar arrangement of plants indigenous to Scotland. He likewise began the culture of the rarer alpine plants, in which he proved very successful. It is proper to add, that in these pursuits, as well as in his long journeys to the Highland mountains, he met with the greatest encouragement from the liberality and scientific taste of Messrs. Dicksons the proprietors.

Mr. Mackay's merit had now become known to several of the eminent naturalists of London. He was elected an Associate of the Linnean Society of that city, on the 16th of February 1796: In the course of this year also he received a very flattering testimony to his botanical proficiency from Dr. Smith, the President of that Society. This was contained in the elegant periodical work, intituled *English Botany* (of which Dr. Smith may be considered as the author, and Mr. Sowerby as the artist,) at the article Eriophorum alpinum. "We are obliged for wild specimens (they say) to Mr. John Mackay of Edinburgh, a most diligent and skilful investigator of the vegetable kingdom, by whose communications we have often been enriched."[1]

[1] In this work Mr. Mackay is acknowledged as a contributor of rare British plants at the following articles :—Draba incana [t. 388], Sison verticillatum [t. 395, Carum verticillatum], Cardamine hastulata [t. 469, Arabis petræa], Cerastium alpinum [t. 472], Veronica alpina [t. 484], Potentilla aurea [t. 561, P. alpestris], Subularia aquatica [t. 732], Eriocaulon septangulare [t. 733], Azalea procumbens [t. 865, Loiseleuria procumbens], Sibbaldia procumbens [t. 897, Potentilla Sibbaldi], Juncus castaneus [t. 900], Rumex digynus [t. 910, Oxyria digyna], Stellaria cerastoides [t. 911, Cerastium trigynum], Gnaphalium sylvaticum [t. 913, G. sylvaticum, var. norvegicum], Carex filiformis [t. 904], Schœnus rufus [t. 1010, Scirpus rufus], Lichen lanatus [t. 846, Cornicularia lanata], venofus [t. 887, Peltidea venosa], croceus, [t. 498, Solorina crocea], Splachnum mnioides, and several others.

[Without any profession of presentation of a complete list of species under which Mackay's work is referred to in English Botany by Sir James Edward Smith or his successors, I may add the following names to Dr. Neill's list above :—Draba hirta (D. rupestris), t. 1338; Thlaspi hirtum (Lepidium hirtum), t. 1803; Raphanus Raphanistrum, t. 856; Raphanus maritimus, t. 1643; Silene nutans, t. 465; Lychnis Viscaria, t. 788; Arenaria rubella,

In the course of summer and autumn, 1799, he made a tour of the district of Galloway, and also examined the Island of Arran. In this journey he observed a species of raphanus, which he considered as new, and used to term maritimus: Dr. Smith, however, in his *Flora Britannica*, has ranked it only as a variety γ of Raphanus raphanistrum. In this tour, mineralogy began to divide Mr. Mackay's attention with botany.

The office of Superintendent of the Royal Botanic garden of

t. 2638; Cherleria sedoides (Arenaria Cherleri), t. 1212; Spergula saginoides (Sagina Linnæi), t. 2105; Astragalus uralensis (Oxytropis uralensis), t. 466; Rosa involuta, t. 2068; Pyrus pinnatifida (fennica), t. 2331; Saxifraga pedatifida, t. 2278; Epilobium alsinefolium, t. 2000; Sium repens (Apium nodiflorum), t. 1431; Erigeron alpinus, t. 464; Antenaria hyperborea (A. dioica), t. 2640; Hedypnois Taraxaci (Leontodon autumnalis, var. pratensis), t. 1109; Hieracium villosum (H. eximium), t. 2379; Myosotis rupicola (M. alpestris), t. 2559; Veronica saxatilis, t. 1027; Euphorbia Esula, t. 1399; Salix damascena (S. nigricans, var.), t. 2709; Scirpus multicaulis, t. 1187; Scirpus glaucus (S. Tabernaemontani), t. 2321; Eriophorum alpinum, t. 311; Eriophorum polystachium (E. latifolium), t. 563; Carex filiformis, t. 904; Carex rigida, t. 2047; Carex pulla, t. 2045; Phleum alpinum, t. 519; Poa alpina, t. 1003; Poa flexuosa (P. eulaxa), t. 1123; Poa cæsia, t. 1719; Isoetes lacustris, t. 1084.

In the interesting and valuable historical record entitled "Notes on the Drawings for English Botany," prepared by Mr. F. N. C. Garry, in course of publication in the Journal of Botany, which raises the curtain from the method of production of that work and gives us particulars of the data upon which the figures and description were founded, numerous references to Mackay as well as to George Don will be found. Mackay's name is mentioned under most of the species already cited and also under the following :—Cochlearia danica, Silene acaulis, Cerastium latifolium, Stellaria glauca, Trigonella ornithopodioides, Saxifraga nivalis, Hieracium nigrescens, Veronica humifusa, Juncus biglumis.

Reference by Sir James Edward Smith to the co-operation of Mackay will also be found in Flora Britannica under the following additional species :— Hesperis inodora (H. matronalis), Brassica campestris, Silene anglica, Hieracium murorum, H. prenanthoides, Pulmonaria maritima (Mertensia maritima), Bartsia viscosa, Juncus maritimus, Carex teretiuscula, Festuca calamaria (F. sylvatica), Elymus arenarius, Splachnum fastigiatum (S. mnioides var.).

In English Flora there are further references to Mackay by Sir James Edward Smith under these species :—Œnanthe pimpinelloides, Hieracium pulmonarium (H. saxatile), H. denticulatum (H. Dewari), Lysimachia thyrsiflora, Veronica officinalis var. Allioni, Carex binervis, C. lævigata, Lolium arvense (L. perenne).—*I. B. B.*]

Edinburgh having become vacant by the death of Mr. Menzies, Mr. Mackay was appointed to that situation in February 1800. He immediately commenced many improvements on the garden, to the great satisfaction of Dr. RUTHERFORD, the Professor of Botany. During the courses of lectures in summer 1800 and 1801, Mr. Mackay occasionally accompanied the more keen and inquisitive students, in short botanical excursions around Edinburgh, a plan admirably calculated to interest the student, and to inspire that enthusiasm and those keen sensations, which enable the naturalist to look at the objects around him with feelings so different from those of mankind in general.

In the course of autumn, 1801, Mr. Mackay's friends had the mortification to remark, that his health was rapidly declining. When winter approached, he was entirely confined to his chamber. In the end of December he received a consolatory visit from Mr. Don the botanist, of Forfar.[1] Although his strength was much impaired, the society of Mr. Don recalled his wonted relish for botany, and immediately his table was covered with Cryptogamia. Even several days after his friend had taken leave of him, I was much pleased to find him still amusing himself with the assorting of mosses. Indeed, in the case of Mr. Mackay, I had frequent occasion to remark the salutary influence of enthusiasm in a favourite pursuit, in tending to divert the mind from those gloomy prospects that are apt to haunt us when under the pressure of bodily affliction.

Mr. Mackay lingered for several months, his strength gradually decaying. Before the end of March 1802 he had become bedrid. About this time he afforded a most striking proof of his invincible ardour as a botanist and florist, by desiring the hyacinths, jonquils, and other early flowers that had come in blow in the dry-stoves to be brought to his bedside, examining them and giving his opinion of them, one by one. About this period, also, a parcel of young plants of new and rare ericas, happening to arrive from some of his correspondents, he requested to see them; and, after declaring his satisfaction with them, observed, in a pathetic tone, "that he would never see them

[1] Don refers to this visit as occurring "about September." See Letter to N. J. Winch, dated Forfar, May 11, 1802.—*I. B. B.*

blow." He lingered till the 14th of April 1802, when he expired in the midst of his afflicted relatives.[1]

Thus fell, in the prime of life, a young man who bid fair, had he lived, to have reached the very summit of eminence in his profession. He possessed an acute and penetrating genius, a good taste, and a thirst for the knowledge of nature, that led him to pursue his studies with the greatest eagerness and ardour. He discharged his professional duties with unremitting assiduity; and often did he rob himself of his nightly rest in acknowledging the communications of his numerous botanical correspondents.

He was honoured with the acquaintance, friendship, and esteem of many men of science, literati, and persons of distinction about Edinburgh. Col. Brodie of Brodie, M.P. for Morayshire (a gentleman distinguished for attachment to botany) was his constant friend and patron.[2]

[1] "A plain stone has been erected to the memory of John Mackay, with a very classical inscription from the pen of Mr. Candlish, by far the best Latinist here, and whose sudden death, by apoplexy, a few days ago still overwhelms me with astonishment, he being a dear friend.

"Mr. J. T. Mackay, Dublin, was here and is gone to Ireland a short time ago. He stayed chiefly with me, and I am happy to say that in knowledge, taste, and modesty he is likely to rival his brother.

"Please mention if this come to hand, and also how I can send you a printed copy of the inscription above mentioned: 'Sacrum | memoriæ | Johannis Mackay, | Qui, | xviii^vo Calend. Maii, | anno post Christum natum M.DCCC.II^do, | viginti novem annos natus, | diem defletus obiît supremum; | mortalitate quidem expletâ, | at nondùm multiferæ naturæ amœnitatum studio: | Quique, | vivus, | ut ingenii bonitate, suâ modestia, morumque suavitate, | erat amicis unicè carus; | sic hortensis floræ deliciolas, | et rurigenam prolem, | tam indefesso pernoscendi ardore, | quàm rarâ discernendi disponendique peritiâ, | Florilegis Herbariisque acceptus: | Posuit | Frater | J. T. Mackay, | M.DCCC.V^to.'"

*Smith Corresp. Linn. Soc.: Dr. Neill to Sir J. E. Smith, 9th May, 1806.*

I have not discovered where this stone was erected or where Mackay was buried. The Registers of Greyfriars, St. Cuthberts, Canongate, and Calton give no information.—*I. B. B.*

[2] "A Mr. John Mackay at Messrs. Dickson's & Co., Seeds and Nursery Men Edinr., travel'd through a great part of the North and West of Scotland in search of Plants, and found a great many not noticed by Lightfoot; of these I have sent a list to Mr. Sowerby, along with some specimens of the Eriocaulon decangulare—he wishes for some in seed, I have desired Mr. Mackay if he has any in that state, to send them, along with some for you, and am persuaded he will chearfully send you specimens of any or all he

Possessed of the most extensive and accurate knowledge of botany, Mr. Mackay yet conducted himself with so much reserve in mixed company, that a stranger might long converse with him without discovering that he knew more of that science than other men. In talking of plants he always preferred the English names (where such existed,) except in conversing with known botanists.

In the course of several little botanical excursions I had the happiness to make in company with him, I could not help remarking the uncommon acuteness of his eye, in detecting the minute cryptogamia. As he glanced around, *oculis emissitiis*, he used to find the rarer little mosses and lichens in spots where his companions had observed nothing.

The power of his memory in retaining with accuracy, and recalling with the most prompt facility, the generic and specific Linnean names of between 3000 and 4000 plants, always appeared wonderful to me.

His studious habits and enthusiasm for botany did not tinge his social character, or produce any indifference for those little forms of politeness, which men absorbed in study and science are so apt to neglect. The urbanity and complacency of his manners were generally admired. His countenance habitually wore a smile; his eye was piercing, but at the same time beamed with modesty.

has collected—I do not know his situation with Mr. Dickson, but as a young man indefatigable, and an Enthusiast in pursuit of Plants, I am persuaded he will do credit to any employment procured him in that way. I have no connection with him, but was very much pleased with his knowledge of Indigenous Plants, when he passed several days here last season, and ranged through the extensive woods, along with me in this neighbourhood. I have prepared him for your directions, and am certain he will attend to them with exactness."—*Smith Corresp. Linn. Soc.: Brodie of Brodie to Sir J. E. Smith, 7th May 1795.*

"As you do not say Mr. McKay has furnished you with the Specimens of the Eriocaulon wanted I have again wrote him to that purpose—McKay is a Worthy man and an excellent Botanist to whom I often apply—as I saw him in the list of the Members of the Linnean Society, I wished him to communicate to It throw you my Discoveries in that Way—Your Good Intentions, by which I think myself much honoured, afford me the expectation of being able to do it in Future immediately Myself."—*Smith Corresp. Linn. Soc.: Brodie of Brodie to Sir J. E. Smith, 18th June 1795.—I. B. B.*

His private social virtues will not indeed ever be forgotten by his relatives and acquaintance: but as the influence of these virtues was local, their remembrance must be temporary ; it must perish in a great measure with those who witnessed them. But his fame as a botanist was already widely diffused, and will long be held in remembrance. His name will live in the annals of the Linnean Society : it is frequently recorded with honour by Dr. SMITH in the elegant botanical work already mentioned [1] ; and we may perhaps hope that that truly eminent Botanist will yet further embalm it, by connecting it with some species of plant of which he was the discoverer.

It would be improper not to take notice here, of some very neat verses to Mr. Mackay's memory, which were circulated among his acquaintance, and appeared in the "Edinburgh Evening Courant"[2] soon after his decease. They were the effusion of a worthy and most affectionate friend; and, to no small poetical merit, added the recommendation of pourtraying their subject.

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## LETTERS OF JOHN MACKAY.

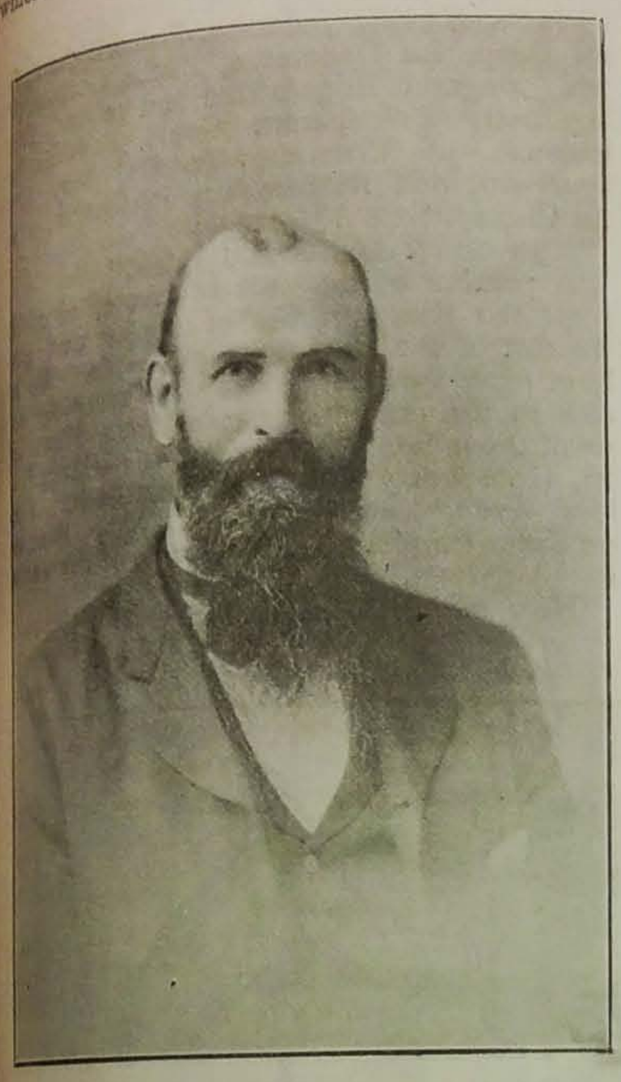
To this sympathetic contemporaneous sketch, hitherto lost sight of, I add transcripts of some of Mackay's letters which have come under my notice, for the light they throw on his relationships with botanists of his day.

The following from Mackay to Robert Brown is preserved in the Brown Correspondence in the British Museum, Cromwell

[1] Opposite to plate 1123 of this work (*Poa flexuosa*) Dr. Smith has given the following elegantly simple eulogy of his deceased botanical friend :— "The Scottish mountain of Ben Nevis, amongst a profusion of botanical rarities, has afforded us this new species of Poa, discovered there by the late Mr. John Mackay, a young man, who sacrificed his repose, and finally his health and life, to the too ardent pursuit of botany and horticulture. His discriminating powers, and readiness of communication, will long live in the memory of those who knew him. We would never neglect the opportunity of twining a modest garland for the brows of such benefactors to science, even though it were only of grass or moss."—*English Botany, No. 135, for February 1803.*

[2] For June 3, 1802.—*I. B. B.*

and it will at once be seen that it is most advantageous in the distribution of the light pollen, for the wind can shake the catkins to and fro, and carry away the pollen, without being interrupted by the dense masses of foliage. If the ordinary rule of the leaves being developed first (which usually exists with the insect-fertilised



MR. GEORGE MACKINLAY.

arision) was in force among the catkin-bearers, would interfere with the free distribution of the pollen by the wind. Nothing could be more advantageously conjoined with the other devices for wind-fertilisation than this habit of the flowers appearing before the leaves."

June 16th.—I wonder how many growers of Anemones—or, shall I say, how few?—notice that they have no petals. I have grown great beds of them, and am not, I think, a remarkably unobservant person, yet it was long before this simple fact, which must be known to every botanist, attracted my attention. The most superficial examination of a flower will show that the floral whorl is composed of coloured sepals. There are no petals; they have disappeared, or, in technical language, have been "aborted." Nature had no use for them, so she dispensed with them; though in individual specimens traces of them—tiny attempts at petals—may often be noticed. Why she coloured the sepals in this case and got rid of the petals, instead of using the ordinary green sepals as long as they were wanted for protection, and then casting them aside, as in the case of the Poppies and Eschscholtzias, is more than I can explain. Some difference in the surroundings must have caused the difference in habit, but what it was is not easy to determine. To it, however, we owe the fact that the flowers of Anemones, being composed chiefly, not of flimsy petals, but of the stronger and more firmly-attached sepals, are far more lasting than such flowers as Poppies.

June 17th.—Broad Beans and black-fly seem to be inseparable companions. I do not remember having ever seen the former grown from start to finish without the latter, though the chances are, perhaps, as favourable this year as they have ever been. Still, if the mischief does not begin too early, and is dealt with in time, it does not matter much. Nobody wants to let Beans grow as long as they will continue to do so, and if the tops are taken off as soon as the black-fly appears there is seldom any trouble afterwards. And all the energies of the plants are concentrated on the pods.

H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 142.—MR. GEORGE MACKINLAY, AT THE GARDENS, WREST PARK, AMPTHILL.

AMONG "the stately homes of England," Wrest, for centuries the residence of the De Grey family, occupies a foremost position, and the gardens are maintained on a scale worthy of the mansion to which they form a lovely setting.

Although the present owner, Earl Cowper, K.G., does not spend much time at Wrest Park, both he and the Countess take the utmost interest in their historic Bedfordshire seat; and a stranger visiting the gardens, as I visited them at the end of May, cannot fail to be struck with the efforts which are obviously made in all parts of the demesne to preserve intact the various features which contribute to their beauty. Lord and Lady Cowper not only manifest the keenest interest in the contents of the gardens and estate—Lord Cowper especially in the fine collection of trees and shrubs, and Lady Cowper in the flowers—and give every encouragement to Mr. Mackinlay and the gardening staff, but they also afford the public an opportunity every Monday of visiting the grounds. This privilege is highly valued, and the number of persons availing themselves of it sometimes runs to one or two hundred on a Monday during the spring and summer months.

When I arrived from Flitwick station at the garden entrance, and Mr. Mackinlay opened the door, a picture of loveliness greeted my eyes. Along the whole length of the wall adjoining the head gardener's cottage was a magnificent specimen of Wistaria sinensis in full bloom.

"It has never, in my memory," said Mr. Mackinlay, "flowered so luxuriously, though it may have done so during the sixty years it has been on the wall. The original plant, you observe, is not half the circumference of the sucker that comes away from it. Unless the frost nips the Wistaria, we usually get a good yield of trusses of flower, but this is a record season."

"You have some more brilliant colouring in the Wallflower beds of the cottage garden?"

"Yes, I suppose that there are eight varieties of doubles and the same of singles, all different in colour. The Vulcan is a new variety, and one of the best.. The beds are edged with Aubrietias, and the Viola cornuta, one of the oldest we have."

on the way, we proceeded as far as the strangers' gate, at which the public are admitted. But before we went further, I inquired the extent of the grounds.

"There are one hundred and fifty-acres enclosed altogether, and six of kitchen gardens."

"And the number of the gardening staff?"

"Twenty-five. The number of houses is twenty-three, and, to give you a further idea of the extent of our operations, I may say that there are seven miles of walks, and about ten acres of gravel."

"I see that the beds in the Rosery are edged with different varieties of Violas?"

"Violas have lately been extensively grown at Wrest. The varieties include the following:—Summer Cloud, Holyrood Blue, Pilrig Yellow, Countess of Kintore, and Skylark. As to the Rosery itself, at Lady Cowper's instructions, several alterations have lately been made, and some French Roses planted. Lady Cowper herself selects the Roses, of which we have all the best varieties. Quite ten dozen plants were put in this year."

"What does your summer bedding in the west garden, approaching the conservatory, chiefly consist of?"

"Cannas, Campanulas (the dwarf varieties), Tagetes, Geraniums (including Bijou, Brutus, Improved Queen of the Whites, Vesuvius, and Madame Sharden). There are thirty-two beds of Geraniums, with one hundred and thirty plants in each bed."

"And the principal plants in the herbaceous border which runs round the south side of the west garden?"

"Delphiniums and Phloxes. All the plants in the border were lifted and replenished during the winter."

"The conservatory is a very lofty building?"

"It also takes a good deal to fill it, but we only supply the conservatory with flowering and foliage plants when the family are in residence. Now it merely contains some very old specimens of Camellia, Palms, Hydrangeas, Rhododendrons and various other plants.

"The Italian garden in front of the mansion is, I see, all ready for bedding out for the summer. Do you use Geraniums there, also?"

WREST PARK, AMPTHILL.

"The effect is heightened by the Clematis on the arch."

"We always have the arch covered with some climber according to the time of year. Old China Roses or Honeysuckle will succeed Clematis Jackmanii."

Passing out of the cottage garden through the kitchen gardens, and noting a Sweet Brier hedge

"Largely. I should say there are about eight hundred. There are likewise Verbenas in variety (Crimson King, Purple King, Miss Willmott), dwarf Marigolds (dark and yellow), Tagetes, Zinnias, Pyrethrums, Arums, Selaginellas, Ageratums (Imperial Dwarf), Lobelias (Swanley Gem, Emperor William, Snowball and Light Blue), and Coleus Verschaffeldtii."

Traversing several of the admirably-kept walks to the left of the mansion, we came to a large pond with an "Atlas" in the middle, and gold-fish in the water. Close by is the Apple orchard, with some trees that bear remarkably well.

"You might name a few," I said.

"Ribston Pippin, Blenheim Orange, Ferris's Pippin, Bedfordshire Foundling, Honmead's Pearmain, Lane's Prince Albert, and Disne de Buff (or Countess Cowper). At one time the orchard was entirely grass, but five years ago I removed the turf round the trees to the extent of ten feet in diameter, and gave each tree a dressing of a quarter of a ton of farmyard manure."

"With satisfactory results?"

"The results were simply the renewal of the lives of the trees, and I can strongly advise people who desire to renovate old and exhausted orchards to pursue the same course."

"Can you tell me the height of the Wellingtonia feathered to the ground on the north side of the orchard?"

"It is seventy-four feet, and is considered a very good specimen; there is not a much better one in the country."

"Speaking of trees, is not the central avenue of Elms, by which the mansion is approached from the large iron gates, singularly fine?"

"By common consent it is one of the finest there is. The English Elms are banked north and south with Spanish Chestnut."

"This," continued Mr. Mackinlay, as we turned on to a pathway leading out of the orchard, "is the Long Walk, thirty-three feet wide, and half a mile long. At different parts are several grand Wellingtonias, Copper Beeches (scarcely equalled in Bedfordshire), Cedars, a double-flowering Cherry, and many Chestnuts (white and scarlet). The tree close to the Chinese Temple and stone bridge is a Saddle-leaf Tulip, of which there are three specimens."

"Who erected the Chinese Bridge, which is very ornamental?"

"It was designed by the late Countess Cowper, daughter of Earl de Grey, in 18-6, and took the place of the wooden one put up by Lord de Grey himself. The work was entirely carried out by the men on the estate. The surface of the water around the bridge is studded with Lilies and Bulrushes."

Pausing a minute at the celebrated "Dog's Burial Ground," a square space enclosed by high Yew trees, where the remains of many favourite animals are laid, and again to inspect the obelisk to the memory of the Duke of Kent, under whose auspices the gardens were commenced in 1706, we presently reached the Pavilion, a circular building with five recesses, each supplied by a window of Queen Anne's style, and looking either upon an avenue or the serpentine river.

Adjoining the Pavilion is the ferry, formerly used to reach the building across the water, to be seen when looking down the Long Walk from "My Lady's Canal." Not far off is another striking feature, the Lime Arbour, which has been in existence a great number of years. It is very handsome, and beautifully clothed with fine young foliage.

"What is the length?" I inquired.

"From one hundred and fifty to two hundred yards. The members of the Arboricultural Society visited Wrest last July, and were greatly pleased with the Lime Arbour."

"Does it require much attention?"

"No, we just tie it down and prune it once a year. It is the work of two men for about a week."

As we crossed over to the spacious Orangery, which faces south, I noticed banks of Rhododendrons and Portugal Laurels, standing above the low-trimmed Yew hedges, which are so charming and numerous at Wrest.

"The Orangery," said Mr. Mackinlay, "just now, in addition to the Orange trees, contains Myrtles, standard Fuchsias, standard Verbenas, thousands of bedding Geraniums, and large specimen Geraniums about five and a-half feet high, for the front of the mansion. The Orange trees themselves were procured by the late Earl de Grey from France, when the effects of the late Louis Philippe were sold."

"How many trees are there?"

"Twelve. Each tree, when we take it out in June to form the Orange Walk in front of the mansion, weighs a ton. The trees often remain outside until the first week in October, but directly there are signs of frost they are put back in the Orangery. We use them now for decorative purposes only, though at one period the fruit was converted into marmalade."

Near the Orangery is a building with a very different name, "The Hospital."

"Who are the patients?" I asked.

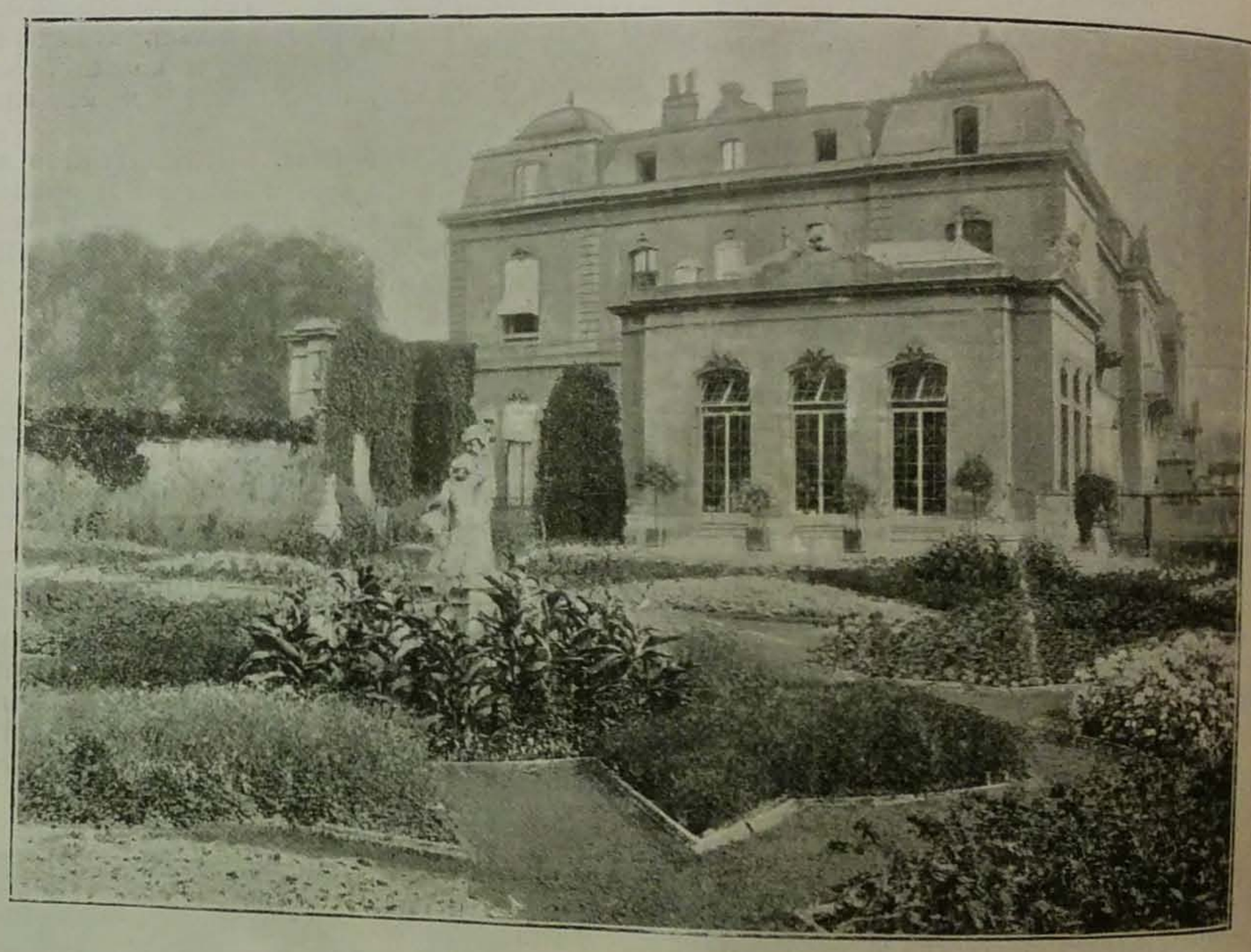
"At present we have none, but if a tree or shrub goes wrong, or wants recruiting, it is put there."

"In lieu of sickly patients, you seem to have thriving Cannas?"

"There are upwards of one hundred and fifty—all of the old variety—and I think that they promise well. We have a nursery as well as a hospital."

"What do you keep in it?" I inquired, as we walked past some masses of named Rhododendrons, more than twenty feet high.

"Various hardy plants which we desire to propagate for supplying the grounds, such as Box-



WREST PARK, AMPTHILL (WEST SIDE).

wood, Holly, Bay, and Portugal Laurels, Yews, Privet (green and golden), and various other shrubs."

Crossing a rustic bridge, we entered an ancient Roman temple, part of which was originally the bath-house, but the basin has been filled up for many years. The roof and most of the exterior is now covered with Ivy; the sides of the further compartment, close to the water, are open.

Next we spent some time in inspecting the huge Yew hedge, which is quite one of the sights of Wrest. An arch is formed of some of its gigantic branches, and I expressed curiosity as to its age.

"It is supposed to be three hundred and fifty years old, is twenty-eight feet high, and twenty-four feet through. An idea of its extent can be formed when I mention the fact that two men are engaged from four to five weeks during the year in clipping it."

No attempt is made to give an exhaustive description of the pleasure grounds, and only some of the more noteworthy features of the extensive kitchen gardens, enclosed by lofty walls, and well clothed with fruit trees, can be indicated.

"I should like the names of some of the varieties of wall fruit," I observed, as we looked at the Peaches.

"The chief varieties of Peaches are Royal George, Noblesse, Rathripe, Lord Palmerston, Sea Eagle, Golden Eagle, Gregory's Late, Princess Beatrice, Violette Hative, etc., etc.; of Nectarines, Lord Napier, Victoria, Elruge, etc.; of Apricots, principally Moor Park and Shipley; of Plums, Kirke's, Jefferson, Fotheringham, Golden Drop, La Delicieuse, Roche Corbon, Victoria, Magnum Bonum (red and yellow), Prince Engelbert, Transparent Gage, Fonthill, and Orleans; of Cherries, Morella, May Duke, Bigarreau, and Bedfordshire Perfection, a very fine Cherry."

"How about Apples and Pears?"

"A portion of the wall is devoted to cordons of all the best varieties of Apples and Pears. The rest of the Apples are pyramids. We have about forty varieties. Many are the same as we grow in the orchard on standards. Here are a few of those less generally known:—Margil, Colini, Gooseberry Pippin, Elliot's Russet, Shropshire Wine, Earl Cowper, Claygate Pearmain, and Spier Pippin. We have most of the varieties usually grown."

"How many varieties of Pears?"

"Thirty-six. Of Pears also we grow such popular varieties as Louise Bonne of Jersey and Doyenné du Comice. Other varieties are Alexandre Lambre, Napoleon, Ne Plus Meuris, Seckle, Passe Colmar, Maréchal de la Cour, Vicar of Winkfield, Warden, Welshman, Althorp Crasane, and Pitmaston Duchess. There are very few standards among the Pears."

"Do you force a quantity of Strawberries?"

"About seven hundred plants of Royal Sovereign and Leader. The varieties outside also include Elton Pine and Garibaldi. We work Strawberries on the one-year system. They are planted two feet asunder, and one foot between each plant. After we have gathered the crop we dig them down and crop the ground with spring vegetables."

"Currants, I notice, are grown on standards?"

"Yes, and admired by all who go round the kitchen garden. They were put in nine years ago, and they correspond well with all the other standards about Wrest. The varieties, which are also grown on bushes, are Knight's Red Grape, Raby Castle, Fay's Large Red, Carter's Black Champion, and some very fine white seedlings. The only Raspberry grown is Superlative."

"Among vegetables, I conclude that you go in chiefly for Peas?"

"The special Pea which Lady Cowper particularly likes is the Autocrat. For early work we grow Oxonian, Thomas Laxton, Gradus, and Chelsea Gem; for later, the best are Cuthbert's Duchess, Champion of England, Fay's Conqueror, Ne Plus Ultra, and Marrowfat."

"Have you any favourite Cabbage?"

"We find Mackinlay's Matchless do well. Of Sprouts we grow Roxton and the Cragie; and of Cauliflowers, Early London, Walcheren, Eclipse, and Mammoth. The Onions are all the Wrest Park strain."

"How long have they been in the garden?"

"For the last fifty years. The strain was raised by the late Mr. Snow, head gardener to Lord de Grey. We sow seed in autumn, and transplant in spring. A great point about the Wrest Park Onions is that, thus treated, they resist the attacks of mildew and drought.

"Do you grow different Peaches in the three houses from those outside?"

"No, except the Princess of Wales, and one of those is grown outside. There are five Vineries, one of Muscats entirely; a second, mixed varieties, including Alicante, and Lady Downe; a third, Hamburgh, and Foster's Seedling; and a fourth, Hamburgh, Gros Colman, Lady Leland's Sweetwater, and Foster's Seedling. The fifth Vinery was replanted five years ago, with one cane of each of eleven varieties."

"Can you give me the names?"

"Muscat of Alexandria, Mrs. Pince, Madresfield Court, Muscat Hamburgh, Black Alicante, Mrs. Pearson, Gros Colman, Black Maroc, Alnwick Seedling, Black Hamburgh, and Foster's Seedling. They are all doing well."

"You have some nice climbers in the stove?"

"Yes, the Bougainvilleas look well. Crotons are grown in variety, and there are two fine specimens of the Orchids Stanhopea oculata and Barkeria, Tree Ferns, Pandanus Veitchii, Acalyphas, Asparagus, Palms, Dracænas, in variety, and Fious repens, etc., comprise the rest of the contents."

"Which is the favourite Carnation in the greenhouse?"

"Uriah Pike. I have also a very fine seedling Tree Carnation. The miscellaneous collection in this house includes Fuchsias and Gladioli The Bride, a very nice flower for wreaths and house decoration."

"There remain the fruit houses?"

"At present, Melons and Cucumbers are in the one, and Tomatoes in the other. Sutton's Al and Blenheim Orange are the best Melons; Lockie's Perfection and Rochford the two best Cucumbers, and Frogmore Selected, Chemin Rouge, and Golden Queen the three best Tomatoes."

"I suppose that table decoration is a study here?"

"The system of dinner-table decoration at Wrest is to have different plants on the table each night, and arranged on the dining-table to represent a miniature flower garden; one night we have all Crotons on the table; another, all Coleus, or Acalyphas. If we mix, we have Crotons of Acalyphas and Caladiums, or Caladiums and Selaginellas. The average number of small thumb pots (or 72's) used for the table is about three hundred and fifty. After the design of flower beds is arranged, the pots are concealed with nice, fresh green moss. We supply the mansion in St. James's Square from Wrest with fruit and vegetables."

"How long have you been at Wrest?"

"About nine years. I started at Avoch, in the Black Isle, and was afterwards in succession at Castle Semple, Renfrewshire; Melville Castle, Mid-Lothian; Gosford, East Lothian; Phœnix Park, Dublin; Dalkeith Palace, Midlothian, and then head gardener at Tulloch Castle, Blackwood House, and Lamport Hall, Northampton."

"I believe that some of the members of the gardening staff have been here for a great many years?"

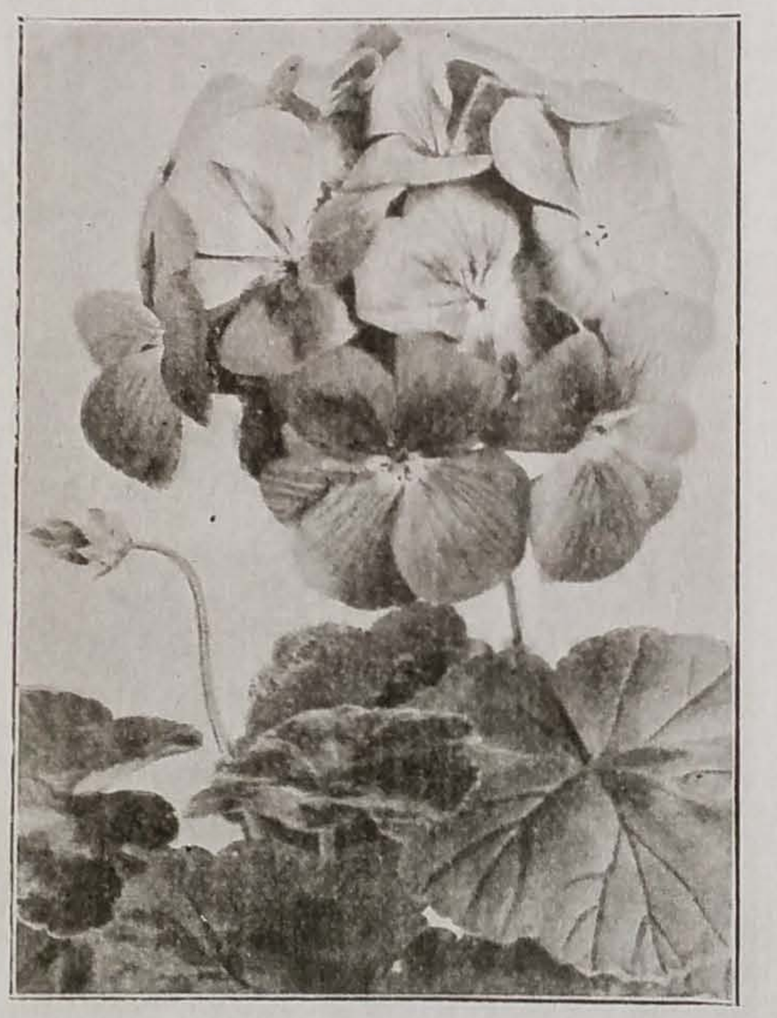
"Several have been in the gardens for more than half a century. The combined service of the employés form a record of three hundred and ninety-two years. I doubt whether such a record can be surpassed in any other garden in the country. Some of the married men reside in lodges in the park, and others in Silsoe village, their rents being exceedingly low, and they and the other workmen on the estate are provided by Lord Cowper with allotments."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 99.—GERANIUMS FOR WINTER FLOWERING, STRAWBERRY SUPPORTS, AND SUMMER PRUNING.

DEAR KATE,—This is the time that your room-plants (not Ferns) should have an outing, for unless they get well hardened before the winter, they will not do well then. So let them have a time in the sunshine and fresh air, the two great doctors which are always to be found at our doors, who reside in our gardens, are always ready for an interview, and send in no bills. We are just waking up, as a nation, to the immense value of the open-air life, and the human doctors are getting to rely more and more on the co-operation of Nature in curing all kinds of diseases, for they find that not only that



ZONAL PELARGONIUM—PROSERPINE.

dread enemy of our race, consumption, but also anæmia, sleeplessness, dyspepsia, and nearly all the commoner health troubles, flee before sunshine and open air, especially when the patient is pleasantly employed in gardening; for the wholesome smell of the earth, the ozone with which flowers fill the air, and, above all, the pleasure of seeing our flowers thrive, and dealing, as the gardener does, with life in so lovely a form, soon begin to raise the standard of health and spirits, to say nothing of curing fretfulness, bad temper, and the general cussedness under which some of us are wont to suffer. But to do this it is no use to dawdle round the garden once or twice a day, snipping off the dead Roses. No, the constant use of the Dutch hoe, a light rake, and a small, sharp spade, will not be too much for most of us, and we shall then thoroughly enjoy our gardens as we never have done before. But to return to your room-plants—now that flowers are abundant, you can substitute bouquets for them, and let the poor plants have a few weeks of fresh air. If you wish to add to them, this is the best time to do it, for plants bought in the winter have a trick of dying from the sudden change from a forcing temperature to that of a room, whilst now we can harden them safely in the open air, and gradually inure them to their new surroundings.

I suppose you put in some cuttings of your Geraniums when you cut them back (before repotting them) in the spring? If so, you will now have plenty of nice little plants which you can either use for window-boxes, bedding out, or for winter flowering. If you decide for the latter, give them a shift now into a pot a little larger than the last, making the loam very firm, and pinch out the ends of their shoots, which will make them throw out sideshoots, and grow bushy. Every flower-bud which makes its appearance before the beginning of September must be sternly pinched out as soon as it is seen, and the plants should stand in the full sunshine and be regularly watered all the summer. Towards the end of September, if you do this, your Geraniums should be a mass of buds, and if you then place them in the sunny window of a room with a constant fire, or in a warm greenhouse, they will be the joy of your heart in the winter, with a fine succession of their bright blossoms. Henry Jacoby, which, no doubt, you know, is the finest of the deep red Geraniums (or Zonal Pelargoniums, more correctly speaking, but this is such a mouthful), does particularly well in this way; Proserpine, too, in a lovely shade of salmon-pink, is magnificent; Caliban is a rich carmine, with a distinct white eye; Niphetos, in pure white; and Opal, in a lovely shade of pink, are all first-rate varieties, which you might get now, and work on for winter, if you like. I like the double varieties very much, too, especially for cutting in winter, because they last such a long time in water, and travel so well. Nydia is the prettiest of those which I have; it has pink buds of a rich tint, which open into blush flowers fading to white; so that the centre of the truss is pink, whilst the outer pips are white, giving the appearance of a blush-rose to the flower. King of Denmark is a fine salmon-red double Geranium; Le Cygne is pure white, and very dwarf in habit; Gloire de France is shaded from deep salmon-red to pale pink; and Wonderful is a fiery orange-scarlet, a grand colour for a cold, winter day. You should pot on your Geraniums for winter-flowering as they fill their pots with roots, giving the final shift about the middle of August; after the buds begin to open (*i.e.*, early in October) you can give the plants soot-water, clear and weak, twice a week, but beware of overwatering them in winter, and don't expose the plants to a sharp, cold draught in the early morning, or they will cease to bloom. Geraniums only need good, rich loam, with a little leaf-mould, soot, and sand; do not give them too rich soil, as they make more floriferous wood without fresh manure, but they must have plenty of sunshine and fresh air to do this.

The Strawberries are now very fine; we use little wire supports for the earliest fruits, painting the wires white every season, as this keeps the birds from touching the berries, for they suspect a trap when they see the clean white wires on which the fruit rests. These useful things can be made at home by anyone who possesses that useful implement, a wire-cutter; you cut pieces of stout wire about a foot long, just bend over one end, and thread on to the wire three straight pieces (each ten inches long) by making

**MACKIE** Margaret of Craigmore 7 Hamilton-drive Maxwell Park **Glasgow** died 9 October 1913 at Glasgow Eik to Confirmation of John Brownlie Somerville writer John Somerville Forsyth Ann Campbell Forsyth (wife of Andrew Sproul Forsyth) and William Thomas Angus.
Sealed **London** 15 October. Former grant June 1913.

**MACKIE** Martha of 5 Burnett-avenue **Bradford** (wife of Benjamin Ingham Mackie) died 4 June 1912 Probate **Wakefield** 7 March to the said Benjamin Ingham Mackie cashier. Effects £390 7s. 3d.

**MACKIE** Peter of Kirkton **Auchterarder** died 8 September 1912 Confirmation of Robert Sibbald Forrest and James Cairns and Thomas Edwin Young and Johanna Hutchinson Napier or Mackie widow. Sealed **London** 11 February.

**MACKIE** William of Sprague Arthur-avenue **Airdrie** died 14 April 1913 Eik to Confirmation of (Mrs.) Elizabeth Thomson Marshall or Weir or Mackie.
Sealed **London** 24 July.

**MACKILLOP** Archibald of Cortnia Canford Cliffs **Dorsetshire** died 15 November 1913 Probate **London** 9 December to William MacKillop bank cashier (retired) Thomas Simpson Lupton sub manager and John Turnbull Roy manager.
Effects £13568 8s. 3d.

**MACKILLOP** Charles of 50 Queens-drive Crosshill **Glasgow** died 19 March 1913 at Ayr Confirmation of James MacKillop and William Telfer Fife.
Sealed **London** 9 May.

**MACKIN** James of 163 Hugh-gardens Benwell **Northumberland** foreman glass maker died 1 January 1913 Administration **Newcastle-upon-Tyne** 24 January to Annie Mackin widow.
Effects £96 18s. 8d.

**MACKINLAY** George of Flitwick **Bedfordshire** died 1 June 1913 Probate **Northampton** 11 August to Elizabeth MacKinlay widow and Alexander John MacKinlay schoolmaster. Effects £2279 11s. 5d.

**MACKINLAY** James Tennant Caird of 60 Montgomerie-drive **Glasgow** died 24 February 1913 Confirmation of Louisa Burns Wilson or Mackinlay John Wallace Gellatly Mackinlay John Hunter and James Thomson Taylor writer. Sealed **London** 29 April.

**MACKINLAY** Mary Jane of 77 Cornwallis-street **Liverpool** (wife of Frederick James Mackinlay) died 15 October 1913 Administration **Liverpool** 13 November to the said Frederick James Mackinlay chemist.
Effects £796 13s. 7d.

**MACKINNON** Nicholas of 127 Broomhill-drive Broomhill **Glasgow** died 23 January 1913 at Glasgow Confirmation of Agnes MacKinnon. Sealed **London** 19 July.

**MACKINNON** Sarah Jane of St. Mary's Cottage Lifton **Devonshire** spinster died 16 July 1913 Probate **London** 13 September to Norman Mackinnon insurance broker and Dora Mackinnon spinster. Effects £7780 8s. 1d.

**MACKINTOSH** Alexander of 16 Sussex-square **Brighton** died 20 December 1912 Probate **Lewes** 5 February to Lilian Mackintosh widow Joseph Edward Bush solicitor and Henry Raymond Joy Holmes brewery manager.
Effects £56736 10s. 10d. Resworn £56657 6s. 5d.

**MACKINTOSH** Alexander Lachlan of 25 Linden-gardens Chiswick **Middlesex** died 28 January 1913 Probate **London** 20 March to Margaret Mary Mackintosh spinster.
Effects £80 12s. 7d.

**MACKINTOSH** Andrew of Buenos Aires **Argentine Republic** died 12 December 1912 at Levetleigh St. Leonards-on-Sea Administration (with Will limited) **London** 13 August to Henry Chicheley Haldane solicitor the attorney of Elizabeth Mackintosh. Effects £576 10s.

**MACKINTOSH** Constance Lilian of Donnington Grove Newbury **Berkshire** spinster died 22 March 1913 at 9 John-street Mayfair London Probate **Oxford** 5 May to Mary Leigh Best widow. Effects £271 15s. 11d.

**MACKINTOSH** George Andrews of Heathfield Victoria-road Sutton Coldfield **Warwickshire** died 17 August 1913 Administration **Birmingham** 12 September to Fanny Hill Mackintosh widow. Effects £78 11s. 7d.

**LINTON**
or
**MACKINTOSH** Isabella. See **LINTON** for **MACKINTOSH.**

**MACKINTOSH** James of Dunchatton Waverley-road **Nairn** died 5 April 1913 at Nairn Confirmation of John Mackintosh minister Jane Mackintosh spinster and Charles Mackintosh. Sealed **London** 28 May.

**MACKINTOSH** Mary Jane of 6 Woodbine-terrace **Halifax** widow died 23 December 1912 Administration **London** 7 January to John Mackintosh confectioner. Effects £22.

**MACKINTOSH** William Charles Henry of 1 St. Andrew's-road **Bedford** died 5 December 1912 Probate **London** 4 July to Marian Mackintosh widow. Effects £1406 16s. 8d.

**MACKLEY** Julia Austin of 60 Heigham-road **Norwich** (wife of Lewis Mackley) died 6 November 1913 Probate **Norwich** 12 December to the said Lewis Mackley retired printer.
Effects £216 7s. 6d.

**MACKLEY** Sarah of 30 Percy-street Bingley near **Bradford** died 7 March 1913 at the Workhouse Infirmary Keighley Yorkshire Probate **London** 10 April to Frederick Fletcher Bacon clerk and Laurence Bacon teacher.
Effects £202 17s. 8d.

**MACKLIN** Ellen Catherine of 37 Eversfield-place **St. Leonards-on-Sea** widow died 9 November 1912 Probate **London** 28 January to Ernest Keene Robinson solicitor.
Effects £4885 12s. 9d. Resworn £4792 0s. 6d.

**MACKNESS** Ernest Josiah of 6 Love-lane Wood-street **London** and of Oakdene Warlingham **Surrey** died 8 July 1913 at Oakdene Probate **London** 8 July to Hannah Mackness.
Effects £1308 7s. 4d. Resworn £1378 0s. 1d.

**MACKNESS** Mary Hingstone of 175 Fort-street **South Shields** (wife of William Mackness) died 18 September 1913 Administration **Durham** 6 December to the said William Mackness boilermaker. Effects £155 6s.

**MACKRELL** Henry Perceval of St. Catherine's Canford Cliffs **Dorsetshire** died 8 March 1913 Probate **London** 22 May to Emily Mackrell widow and Ferdinand Decimus Mackrell gentleman. Effects £1588 18s. 6d.

**MACKRELL** William of 24 Brunswick-place **Leeds** mechanical dentist died 13 June 1913 at 22 Clarendon-road Morecambe Lancashire Probate **Wakefield** 17 July to Priscilla Mackrell widow. Effects £190 15s.

**MACKRETH** Tom of 21 Langdale-road **Liverpool** retired bookkeeper died 23 April 1913 Probate **Liverpool** 10 July to Margaret Mackreth widow. Effects £420 10s. 2d.

**MACKRILL** Jane of 51 Waverley-road East Southsea **Hampshire** widow died 14 October 1913 Administration **London** 24 November to William Bailey Mackrill cashier.
Effects £5.

**MACKWELL** Mary Emma of 23 Lancaster-street Colne **Lancashire** (wife of Eli Mackwell) died 30 October 1913 Administration **Lancaster** 6 December to the said Eli Mackwell weaver. Effects £343 6s.

**MACKWORTH-PRAED** Robert Herbert. See **PRAED** for **MACKWORTH.**

**MACLACHLAN** Donald Alexander of 32 Vanbrugh-hill Blackheath **Kent** died 24 August 1913 Administration **London** 25 October to Christina Maclachlan widow.
Effects £880 7s. 1d.

**MACLACHLAN** Jeanie Gilmour of Williamsburgh **Paisley** died 28 October 1913 at Paisley Confirmation of Robert Buchanan Maclachlan. Sealed **London** 6 December.

VOL. LIII.—No. 2,955. SATURDAY, JUNE 18, 1910.

# THE GARDENERS' MAGAZINE.

## NOTE OF THE WEEK.

### Water.

Water, though one of the most familiar of the so-called elements, is certainly seen to be one of the most wonderful when carefully considered. In the first place, not only can it be resolved into its two constituent gases, oxygen and hydrogen, which, when commingled in gaseous form constitute a most explosive mixture, but even without this resolution into gas, it can assume an equally invisible form as aerial vapour. In the second place, we may behold it in the form of visible vapour, consisting of isolated floating minute drops of water, which may be piled up literally mountain high in the form of towering cumulus clouds, or may pervade the atmosphere as formless fog. Thirdly, we see it in what may be termed its proper water or truly liquid form, in which it covers by far the major part of the world's surface in the shape of oceans, and dots and seams the land itself with lake and river, or their minor forms of pond and brooklet. Finally, we may see it as a hard, brittle, intractable solid in its frozen form of ice, or as an accumulation of myriads of delicate crystals of infinite hexagonal design in the shape of snow. There is, however, still another aspect of water, which, though familiar enough, is more apt to be overlooked, and that is as an essential constituent of many so-called solid bodies, and it is this aspect of water with which the horticulturist, agriculturist, and the garden lover generally are brought most into contact. Nature uses water to an enormous extent as a padding for her vegetable creations; give her a few ounces of salts and a bucket of water and she will build you up gourds, melons, pumpkins, or cucumbers galore, one-twentieth part alone of whose solidity shall be really solid, and all the rest shall be pure water. All succulent vegetation is similarly a mere framework or skeleton inflated with watery bladders. Go to a museum and see the components of our very selves, and mark how big is the vessel of pure water which represents that item in our being. Water, viewed from this standpoint, is the first essential of life. The cell, the universal life basis, is but a tiny bag of water enriched by self-absorbed nourishment, and endowed with whatever potencies it has derived from the parental source as it perfects itself, divides, and multiplies to perform its varied offices, simple or complex, according to the organism of which it forms a creative part, it must have water, water, water at every stage, or its operations cease. The sap of plants, the blood of animals, up to our own vital supply, are nothing but water charged with nutrition, and carried, in the one case, by absorption and transpiration, and in the other, by the pumping action of the heart to feed and assist in building and repairing the vital machinery of the organism concerned. We drink when we feel thirsty by virtue of the fact that the sensation of thirst is given us as an indication that the internal supply of water is running short, and many an unfortunate traveller can tell us of the agony which results when it cannot be replenished. How essential a constant supply is to plant life can be easily evidenced by severing the branch of a tree, or shrub, or even a flower, and noting how rapidly on a hot day the leaves or the flower will wilt and droop, and eventually even shrivel into comparative nothingness as regards substance. How beneficial then must the scheme of Creation appear to a thinking mind, when it reflects upon the wonderful arrangements existing to secure the distribution of water far and wide to meet all these vital needs. Thanks to the diversity of the forms water is capable of assuming, we find it transformed under tropical suns from the liquid to the aerial vapour form, and carried from tropical oceans northward and southward, sometimes as invisible vapour and sometimes as dense masses of cloud, eventually, under the cooler conditions of temperate climes or arctic ones, resuming the liquid form as rain or snow, irrigating the thirsty plain or adding another layer of snow to the mountain summits, but in either case bound to return sooner or later by glacier or river to the mother ocean, to do the same work over and over again. Meanwhile there are agencies at work to keep the main reservoirs, i.e., the oceans, from becoming stagnant, as they would do if ever motionless. The winds and tides agitate the surface, and to restore the balance upset by the drain from the tropics, which we have alluded to as a typical factor in the rain supply, though by no means an exclusive one, there is, in addition to surface currents, a constant slow drifting of the great body of bottom water from both polar regions to the equator, due to the cold water of melting snow and ice being heavier than the warmer water at the surface. Verily, the ways of the Creator are wonderful.

MR. ALEXANDER MACMILLAN,
The Neill Prizeman of 1908-10.

**Mr. Alexander Macmillan,** of Edinburgh, has been awarded by the Council of the Royal Caledonian Horticultural Society the Neill Prize for the biennial period 1908 to 1910. This prize is one which was directed by the late Dr. Patrick Neill to be awarded to any distinguished Scottish botanist or cultivator. Mr. Macmillan was born about 75 years ago, and his first experience in gardening was gained in a market garden near Port Glasgow, where he served his apprenticeship. Thereafter he went to Edinburgh, going from there to various places in England and Scotland. During the last 16 years of his active life he was gardener at Trinity Cottage, Edinburgh, and it was here that most of his ex-

periments in the hybridising of rhododendrons was carried on. That Mr. Macmillan well deserves the honour conferred on him by the society will be fully acknowledged by all who are acquainted with the excellent work he has accomplished. His earliest experiments in plant improvement were with pelargoniums, and later on he turned his attention to chrysanthemums. He was the first to advocate the holding of a chrysanthemum show in Scotland, and, by his writing and the chrysanthemums he exhibited, did much to stimulate an active interest in the highly successful show which is held annually in Edinburgh. When at Trinity Cottage Gardens Mr. Macmillan devoted his attention to greenhouse rhododendrons,and the results of his well-devised efforts are now distributed over the country. Among other varieties he raised are James Whitton, Nathaniel Bryson, and Mrs. Macmillan. Mr. Macmillan gained a Banksian medal at Keswick in August, 1892, and also gained medals at the International Exhibition in 1892, and Gardening and Forestry Exhibition in 1893. He was also a prize-winner for chrysanthemums at the Royal Aquarium in September, 1903. He holds silver medals from the Royal Caledonian Horticultural Society and the Scottish Horticultural Association, and five First Class Certificates from the former and an equal number of Cultural Certificates from the latter.

**Sir George L. Holford, K.C.V.O.**—Our readers will learn with very great pleasure and interest that Lieut.-Colonel G. L. Holford, C.I.E., of Westonbirt, Tetbury, Gloucester, has been promoted to be a Knight Commander of the Royal Victorian Order.

**New Forestry Museum at Kew.**—The new museum at Kew, which has been provided for the display of the products of the forest and of objects relating thereto, has been opened to the public, and should prove a valuable addition to the Royal Gardens. This museum, which is officially known as No. 4, occupies the site of Cambridge Cottage, long the Kew residence of the Duke of Cambridge, and is on the north-east boundary of the gardens, and therefore not far distant from Kew Church. On the death of the Duke of Cambridge in 1904, the late King Edward VII. commanded the cottage and grounds to be added to the Royal Gardens. Appreciating the importance of forestry as an industry in the United Kingdom, the authorities decided to devote it to the timber of trees of economic value grown in this country, with specimens of their fruits, branches, etc. In adapting the building to its present purpose, three spacious rooms and a corridor have been provided, and of these the largest is about 50 feet in width and 60 feet in length. In this there are trunks of the principal timber trees grown in this country, with planks and cross sections. The next largest room also has a length of 60 feet, but the width is 36 feet; and in this there are glass cases down the centre and on the sides in which cones of coniferous trees, seeds, bark, dried shoots, photographs illustrative of the summer and winter aspects of various deciduous trees, etc., are arranged. The old boundary wall to the grounds remains, and access is obtained to the museum by means of new gates immediately opposite the iris garden.

**The Young Naturalists' League.**—Will you allow me, writes Mr. W. Percival Westell, F.L.S., from Chester House, Letchworth, to make known the existence of this league through the columns of your paper? The league was founded by me twelve months ago, and on it first birthday celebrated a membership of over three thousand. In view of the interest now taken in nature study in our schools, and the recognition accorded to it by education authorities, I am desirous of making the aims and objects of the league more widely known, and its work more useful and far-reaching. The time has now arrived for the appointment of branch honorary secretaries, especially schoolmasters and mistresses and those having control of boys and girls, but membership is not restricted to school children, as we welcome anyone who is desirous of joining or supporting the society in any way. I shall be glad to hear from anyone willing to help me in the promotion of this league, and to forward full particulars concerning same on application. My name will be known to many of your readers as a naturalist, and it is because of the real interest I take in the nature study movement, the success the league has already attained, and the good its extension is capable of doing, that I am desirous of widening its sphere of influence through the agency of your valuable medium.

**A Gardener's Record Service.**—A large gathering, representative of the tenantry and employees on the estate of Kininvie, Dufftown, Banffshire, waited upon Mr. William Munro, Kininvie House Gardens, the other evening, and presented him on his retirement with a well-filled purse of sovereigns. The Chairman, in making the presentation, expressively voiced the sentiments of the subscribers when he said that Mr. Munro retired amid every manifestation of respect and esteem by all who knew him, and added the fervent hope that their old friend might have before him a long and pleasant eventide. Mr. Munro very feelingly replied, thanking all sincerely for their great kindness to him. For the long period of 55 years Mr. Munro has followed his profession, and the past 37 years he has spent with Colonel Leslie, of Kininvie, and the previous 18 years with Colonel Marshal, of Dandaleith, Banffshire. The gathering spent a very pleasant social hour, leavened somewhat with a touch of sadness at the thought of parting. It should also be noted that Mr. Munro has been the recipient of very handsome and costly parting gifts from Colonel Leslie and his family, gifts which have given him very great pleasure and satisfaction at the close of his long spell of duty well done.

**Weather in the Spring Season.**—The summary of the weather during the months of March, April, and May, which form the spring quarter of the year, that has been issued by the Meteorological Office, shows that the mean temperature at Greenwich was 0.3 dgrees above the average. In the East and North-East of England only did the temperature exceed 80 degrees in the shade, and the highest temperature was 83 degrees in the East of England, and the lowest was 20 degrees in the South-West of England and the North of Scotland. With regard to rainfall, the number of rainy days exceeded the average in all districts except in the Channel Islands and the East of Scotland; and the aggregate rainfall for the thirteen weeks showed considerable variation in different parts of the United Kingdom. The total amount of rain registered was in excess of the average in the North and the East of Scotland, and in the East, South-East, and North-West of England. In other districts there was a deficiency. The difference from the average was nowhere large. The largest amount of rain registered was 12.91 inches, in the North of Scotland, and the smallest amount was 4.87 inches, in the midland counties. The duration of bright sunshine was about equal to the average, there having been an excess of 28 hours in the South-West of England, and a deficiency of 40 hours in the South of Ireland.

**An Interesting Departure in Nature Study.**—A new feature of Messrs. Sutton and Sons' stand at the Royal Agricultural Society's Exhibition at Liverpool next week will be a Nature Study exhibit on somewhat different lines, and of a highly educational character. It will include cases of garden and farm pests, depicting the ravages of the asparagus beetle, mangold fly, cabbage moth, carrot fly, celery fly, stem eel worm, onion fly, pea and bean weevil, wireworm, millepede, Hessian fly, and many others. Another part of the exhibit will show about 100 farm weeds, each subject being a complete, dried and mounted, plant—i.e., root, stem, leaf, flower, and seed, all botanically arranged with brief descriptions. The useful grasses and clovers will be treated in a precisely similar manner. The weed grasses will be shown actually growing and most of them in flower, as will also be the useful agricultural grasses and forage plants. Sixty leaves will be shown, representing as many different varieties of grasses, descriptive of the remarkable differences existing in their shape and venation. The idea will be carried still further by some carefully prepared dried specimens, showing the divergent root-growth of several of the commoner sorts of grass. Broomrape, dodder, and ergot, parasitic and fungus pests, will be clearly demonstrated, while poisonous (or reputed poisonous) plants, collected, arranged, and named by the firm, will be shown.

**Interesting Mesembryanthemums.**—Dr. R. Marioth has recently described several new South African succulent plants, and among them are two or three mesembryanthemums of quite exceptional interest. The most noteworthy of these is Mesembryanthemum mitratum, which was discovered in the desert belt east of Port Nolloth. The plant bears at the end of the apparently dead branches a fleshy knob, consisting of two closely-joined leaves, between which the flower appears. Flower and fruit then obtain nutriment from the sap of the knob until fully developed, when nothing is left of the latter except its skin. Another species takes the same care of its flowers and fruit, nursing them within its own body; but it buries itself entirely in the ground, and shows only the apex of its few leaves. As the ends of the leaves are flat, and flush with the ground, and the colour similar to the brownish gravel, it is very difficult to detect them when they are not in flower.

**Turin International Exhibition, 1911.**—To celebrate the 50th anniversary of the proclamation of the Kingdom of Italy, an international exhibition will be held at Turin, in April, 1911, and remain open for a period of about seven months. The exhibition grounds embrace the whole of the Valentine Park, and have an area of 247 acres. The site secured for the British section occupies a prominent position, and has an area of about 220,000 square feet. The exhibits will be arranged in twenty-six groups, and those connected with gardening, farming, and forestry, will have a place in Groups 15 and 16; and if the numerous classes are well filled, they should be of much interest to those who are in any way concerned with these industries. Full information relating to the exhibition may be obtained from the Director of the Exhibitions Branch, Board of Trade, Westminster, S.W.

Oxford Dictionary of National Biography

**Macphail, James** (1754–1805), *gardener and writer on agriculture*
by W. A. S. Hewins, *rev.* Anne Pimlott Baker
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**Macphail, James** (1754–1805), gardener and writer on agriculture, was born in Aberdeenshire, the son of a highland peasant. In his seventeenth year he became a farm labourer, and his wages were 23*s*. 4*d*. for the half-year. After suffering many hardships working in Scotland he moved to England, and in 1785 he became gardener to Lord Hawkesbury (later second earl of Liverpool), at Addiscombe Place, near Croydon, Surrey, where he remained until his death. He invented a new method of cultivating cucumbers, and was very successful at growing pineapples and melons.

In 1794 Macphail published *A treatise on the culture of the cucumber ... to which are added hints and observations on the improvement of agriculture*. With the exception of some remarks on highland farming, based on Macphail's early experiences, *Hints and Observations* consists of paragraphs reprinted verbatim, and without acknowledgement, from Adam Smith's *Wealth of Nations*, the works of Arthur Young, and agricultural reports. They were reprinted separately in 1795. Later works included *Remarks on the present times ... being an introduction to hints and observations* ... (1795), in which Macphail defended himself against the accusation that he held democratic principles, and *The gardener's remembrancer, exhibiting the various natures of earth and degrees of climate best adapted for the growth of trees and ... fruits* (1803), which was reprinted in 1807, with a second edition in 1819.

Macphail died in 1805, probably at Croydon, Surrey.

W. A. S. HEWINS, *rev*. ANNE PIMLOTT BAKER

**Sources** Desmond, *Botanists* · J. Donaldson, *Agricultural biography* (1854) · J. Macphail, *Remarks on the present times ... being an introduction to hints and observations* (1795)
**Archives** Meterological Office, Bracknell, Berkshire, National Meteorological Archive, meteorological journal relating to Higham Hill

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W. A. S. Hewins, 'Macphail, James (1754–1805)', rev. Anne Pimlott Baker, *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/17721, accessed 13 Nov 2014]

James Macphail (1754–1805): doi:10.1093/ref:odnb/17721

also. Indeed, the admission that "we have probably a hundred good gardens to-day for every ten good gardens of fifty years ago" surely goes far towards settling the question.

November 2nd.—I wish an ordinance were passed that no Rose should be given a name of more than eight letters. Five should really be quite enough. This, we are often told, is an impatient age, yet some of our leading horticulturists seem to think otherwise, for they are responsible for such terrible mouthfuls, among Roses alone, as S. M. de Rodocanachi, Souvenir de S. A. Prince, Grossherzog von Oldenburg, Souvenir de Marie Zozaya, Madame B. de Bary de Zahony, and scores of others almost as bad. Why, if one had to get a few dozen of these Roses in a shop, as much time would be required for pronouncing their names as would suffice for buying the shop itself. The multiplication of new varieties long ago compelled growers to abandon descriptive names; fancy names have mostly shared the same fate. The names of living persons have taken their place, and have, at least, this advantage—that they are not likely to be given by different firms to different varieties, thus causing confusion. Still, the importance of a good name seems to be overlooked. It will often sell a book, and it might also sell a Rose.

November 3rd.—It is possible to pick up a good many useful hints from nurserymen's catalogues. Often the cultural directions are such as everyone knows, but every now and again one comes upon something which is obviously the result of valuable experience. Here is an example, dealing with the cultivation of Primulas: "Keep in a temperature of from fifty to sixty degrees, and one regular moisture at the root is the secret of success, so that the soil never shows the least crack or vacancy round the inside of the pot; if this is allowed to occur, vigour is gone for the season." In the case of most plants, they should be allowed to use up what water they have before they are given more; but, apparently, this principle should be slightly modified in the case of Primulas.

November 4th.—Some fine double Stocks are shown in the photograph. The difficulty, when planting out seedlings, is to know which will be double. Ordinary seed contains from sixty to sixty-five per cent., so that in every batch the proportion of singles is considerable. I see that a winter-blooming variety, obtained by crossing Intermediate and East Lothian, is said to produce a much higher percentage of doubles—ninety per cent. H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 214.—MR. G. H. MADDERN, AT THE GARDENS, TREWIDDEN, NEAR PENZANCE.

OF all the gardens in West Cornwall, none possess more interest than those of Trewidden, the residence of Mr. T. B. Bolitho, between Penzance and the Land's End. During the summer thousands of passers-by hail with admiration the glimpse they get of the wealth of Veronicas which are but one of many features of the lovely demesne inside the gates. As I walked with Mr. Maddern, the head gardener, up the south drive, one beautiful August morning, I thought that fairer surroundings to a house could scarcely be seen, and that the views obtainable from several points in the grounds were unsurpassably picturesque. The Veronicas, of course, claimed my immediate attention. Even the hedges are planted with varieties of this attractive shrub.

"Which do you consider the best of the varieties?" I asked.

"Caucasica, with its shade of purple, is certainly one of the best. Another is Hendersonii alba, but all Veronicas do well here. The soil is a good loam. We plant them according to the situation, and let them grow as they will afterwards. Dracænas and Phormiums are also planted all along the drive, which extends for a quarter of a mile. Teucrium fruticosa, glaucous in colour, is very useful.

"With regard to flowering shrubs," continued Mr. Maddern, "Rhododendrons do splendidly, and, as you see, behind the Rhododendrons are Hydrangeas."

"Yes, the Hydrangeas are magnificent. What is the variety with the jet-black stem?"

"Cyanoclada. It is very rarely seen, but we have several hundred plants. The attraction of the stem is that it gives a third colour to the plant, and the black stem, green foliage, and blue flower make up a very pretty combination. Other two varieties are hortensis Thomas Hogg, pure white, and hortensis Otakso monstrosa, pale rose. The Hydrangeas, being in a very sheltered position, go on flowering until Christmas. Last Christmas Day we gathered a quantity."

By this time we had arrived at the mansion, on the south front of which is an Abelia floribunda, eight to nine feet high. It was planted some years back, flowers first in spring, and the second time in August. Tacsonia sinensis also does well on the front of the mansion. With a glance at the fine belt of trees beyond the lawn, we proceeded down the north walk, and here some fine specimens of Conifers, deciduous trees, and shrubs attracted my attention. One of the first was a Podocarpus, and I asked Mr. Maddern to point out some of the others.

"One of the most notable," he replied, "is Thuja gigantea aurea, which is particularly elegant; then there is a very nice specimen of Pinus excelsa, the Himalayan Pine; a striking specimen of Retinospora gracilis aurea; and a fine example of Acer sanguineum."

"You have a superb clump of Dracæna australis."

"Yes, they are about twenty-five feet high, and each branch carries a magnificent tuft of handsome, relatively broad leaves. The flower spikes are thickly clustered with sweetly-perfumed, white, bell-shaped flowers, and for sub-tropical gardening this variety is very valuable. A rare plant, I think, is Cordyline indivisa vera. The specimen here is remarkable for the leaves, some of which are ochre in the centre, and others red. The plant is between three and four years old."

In what is known as the south part of the north garden is a very fine specimen of Stylosa japonica, about fourteen feet high and twelve feet through. Here, too, is an example of a rare shrub, Feygoia Sellowiana, and an Abies Webbiana, remarkable for its glaucous foliage.

Passing into the north garden, a brilliant show of scarlet Begonias at once claimed notice, and also a fine bed of Cannas, mixed with Castor-oil plants.

"What is the variety of Canna?" I inquired.

"Ehemanni. I have grown it for fifteen years, and I think that the green foliage is as perfect as the green flowers. The bed is about twenty yards long."

"Have you many varieties of Lilies in the pond?"

"They are chiefly Nymphæa carnea, N. Robinsonia, and N. chromatella. The border on the other side, which is of great size, is planted with varieties of Fuchsia, dotted with Castor-oil plant."

"You might mention the arrangements in some of the beds, which are so exceedingly effective."

"One of them is a mixture of Campanula pyamidalis, Roses, Cornflowers, and Iresine. Then there is a bed of Sutton's Lavatera (rosea splendens), with Coleus Verschaffeldtii, edged with Geraniums. The dark shade of the Coleus and the light-green leaves of the Lavatera afford a striking contrast. Behind this bed is a great clump of Bamboo metake."

Other features in this part of the gardens included a beautiful specimen of Abies pungens glauca three or four years old; a number of young plants of Dracæna australis, right and left of the border; flourishing Irish Yews at the corner of the paths; the Trewidden variety

TREWIDDEN, NEAR PENZANCE.

The beautiful Cornish residence of Mr. T. B. Bolitho, shewn above, is famed for its wealth of flowering shrubs.

of Phormium, raised about ten years ago; a big bush of Hydrangea paniculata, with a small, white bloom, which continues in flower for a couple of months; a very rare Japanese shrub, close upon twenty feet high, with a lovely white flower; a marvellous specimen of Gunnera manicata, forty feet wide, with one leaf nine to ten feet across, and stalks nine feet high.

We next went into the wilderness, out of which is a little rock garden. In the latter are Liliums in variety, and a number of rock plants, also a most lovely Hydrangea (Mariesii), with a very intense blue flower, fully three inches in diameter. In the wilderness itself is a huge tree of Rhododendron Falconerii, and an equally remarkable specimen of Dicksonia antarctica.

"The Australian Tree Fern," said Mr. Maddern, "grows splendidly in the open here, especially in the shade. The fronds are over ten feet long, and of the most perfect shape and colour. The clump of Dicksonia close to the summer-house is about eight years old. Near to another fine Gunnera is a rather fine specimen of Embothrium coccineum, sometimes called the Fire Bush. The flowers are brilliant scarlet, and are produced in large sprays. We have about half a score of the ensete variety of Musa, which are simply planted out for sub-tropical work. The Clethra arborea, another greenhouse plant, called sometimes the Lily of the Valley Tree, with an abundance of white flower-spikes, flourishes here in the open."

"I suppose you hardly need a conservatory?"

"We are just coming to its substitute—the winter garden. The present contents are made up of the best varieties of Rhododendrons and other plants, most of which grow in the open, but at this time of the year you will find the kitchen garden more interesting."

"You seem to decorate the kitchen garden wall in a most effective manner."

"Yes; it is covered with Ivy-leaf Geraniums and Tropæolum Ball of Fire, which gives a very brilliant appearance. I think it is quite a mistake not to make a kitchen garden as decorative as possible."

"You do not neglect the useful?"

"No, we have a very fair selection of Apples and Pears; the Apples include Lane's Prince Albert, King of the Pippins, Hambling's Seedling, Adams' Pearmain, Cox's Orange Pippin, Ribston Pippin, and Ben's Red, a local variety. We have a fine crop this year. We also go in largely for Strawberries, and find Royal Sovereign the best. Laxton is also very good, and we have a few of Laxton's Latest of All and St. Joseph."

Entering the Peach house, Mr. Maddern observed that all the varieties do well, and that there is never any difficulty about a crop. The Peaches include Late Devonian, Hale's Early, Thomas Rivers, Nectarine Peach, Violet Hative, Bellegarde, and Dymond; the Nectarines, Early Rivers, Lord Napier, Humboldt, and Pine-apple.

"What is the variety of Tomatoes which you grow?" I asked.

"It is called the Doyle, and came from Guernsey. It is a very early variety, suffers very little from disease, and we get a large supply of fruit, gathering from the first week in May until September. The fruit is very large, a lovely colour, and we have grown it now for ten years. With regard to the Vinery, we grow Black Hamburgh, Lady Downe's Seedling, Black Alicante, and Gros Colmar."

Outside, having commented on a magnificent lot of Sweet Peas, consisting of Eckford's best varieties, some fine specimens of Crimson Rambler Roses trained on poles, a large batch of Lobelia cardinalis to cut from, and the large beds of Asters, Mr. Maddern drew my attention to the south wall, which is used for the cultivation of climbing plants which are usually grown in greenhouses.

"These," Mr. Maddern said, "include Lagerstrœmia indica, Ostrowskia magnifica, Correa cardinalis (the South African Fuchsia), Dimorphotheca Ecloni, Lasiandra macrantha floribunda, Aphelexis (Helichrysum), Grevillea Preissii, Streptosolen Jamesonii (now in full bloom), Solanum Wendlandii, Lonicera Hildebrandtii, with many others."

"What do you grow chiefly in the frames?"

"Gloxinias, Poinsettias, Primulas (of the sinensis and stellata varieties), and Cucumbers (Eckford's Epicurean and Sutton's A1). The Fernery contains about fifty varieties, and you might like to add that there is a climbing Dahlia grown in one of the houses now, and out of doors in summer. The botanical name is Hidalgoa Wercklei. The flowers are scarlet, and the foliage gives the plant a graceful and delicate appearance."

From the kitchen garden we went to the south garden, where named Rhododendrons are mostly grown, and I asked for the names of the best six.

"Countess of Addington, Thompsonii, Princess Alice, Aucklandii, Callophyllum, and Maddernii. Named varieties of Azaleas are also grown largely here."

"Have you any specially rare plants in the open in this garden?"

"The most notable is Anopteris grandulosum. Magnolia Watsonii also does well here, and Spiræa Antony Waterer."

In the north garden dark-crimson Begonias are a feature, and Mr. Maddern remarked, "There are seven hundred plants in this bed, all seedlings of this year. They are now fifteen inches high, and the foliage is as good as the flower."

"Are not the flowers exceptionally large?"

"Yes, they are from seven to seven and a half inches across. Facing the bed of Begonias is a very fine specimen of the Umbrella Pine, quite twenty feet high and fifteen feet through."

"How many Gloxinias do you grow?" I asked, as we went into the large flowering house adjoining the Begonias.

"Between forty and fifty. We use as a pot plant yellow Begonias with mottled foliage, and we think rather highly of the double-flowered Begonia, William Bilky, a pretty salmon colour. The collection of Pelargoniums includes most of the best, of which Florence Palmer, King of Denmark, and Duchess of Parma are exceptionally good. On the roof of this house we have a fine specimen of Solanum Wendlandii, with twenty trusses of bloom two feet across."

"You grow Orchids in the other house?"

"Chiefly Cypripediums and Cattleyas. Here we have, also, some winter-flowering Begon... and Anthuriums."

On the east side of the house, Camel... (bright red, very large, seven or eight inc... across) were in flower, and Mr. Maddern in... cated a fine plant of Vitis coignetiæ—the C... son Glory Vine—whose brilliant scarlet hue ... the autumn renders it a great ornament.

"Other plants here," he continued, "are B... beridopsis corallina—the Coral Barberry—La... geria rosea and L. rosea alba, and Theba... acuminata on the wall, with Begonias und... neath. Acacia cultriformis does very well, a... Sollya heterophylla is a very pretty shr... Another plant which is worth mentioning, ... cause the flower is everlasting, and we get ... hundred blooms at a time, is Phenoco... prolifera Barnesii; and Crocosma imperialis ... very rare plant, and rather expensive. ... flowers for about three weeks in August. M... greenhouse plants growing in the open ... Brachycoma Drummondii; and Mane... bicolor, a very pretty plant for a small tre... with tubular-shaped flowers, the lower por... bright scarlet, and rich yellow at the apex. ... border in this garden contains Phlox in vari... Tree Calceolarias (about four feet hig... Begonias and Anemones."

Passing through a second kitchen gard... which contains the usual vegetables, especia... Seakale, Peas, Brussels Sprouts, and Ca... flowers, I saw Violets in bloom. The varie... grown are Princess of Wales, Luxone, a... California.

Finally, by way of the north drive, wh... commands a splendid view of Carn Brea a... St. Michael's Mount, and through the Box g... den, we arrived at a wild garden in which eve... thing is allowed to grow as it will.

At the time of my visit, Montbretias, Cann... Tritomas, Fuchsias, Clethras, Eryngiums, a... many other favourites were in flower, with ... number of shrubs.

When, however, we finished our necessa... rapid tour of inspection, and I asked ... Maddern for a few details about himself, ... rejoined that he had been at Trewidden ... about ten years, but that he preferred that ... garden should monopolise my attention, and ... could not even induce him to lend a photogra... of himself. The pride he takes in his wo... and the extremely good results, none the l... deserve emphatic recognition.

ALFRED WILCOX

# Letters from a Lady Gardener.

No. 170.—THE WINTER CARE OF VARIOUS PLANTS.

DEAR KATE,—I am always delighted to answer your questions, and glad to hear that you find my letter useful. The Datura you mention may be kept safe for the winter in any frost-proof place, giving it water occasionally, as it must not become very dry; it will live in a room, but, I fear, would be the reverse of ornamental, because it is very likely to drop nearly all of its leaves in a dry atmosphere. Its great enemy is red-spider, which covers the whole plant (if allowed to do so) with the finest of webs, hung with myriads of these tiny creatures, which are barely visible to the naked eye, but most destructive, making every leaf turn yellow and drop off. The plant should be syringed every day of its life, to keep these small pests away; but this is not feasible in a room, and the next best thing you can do is to sponge it as often as possible (especially the backs of the leaves) with warm soap and water, adding a little powdered sulphur to the mixture, for all the little red-spiders will leave the foliage and hang themselves out on webs between the leaves if sulphur is on these, when they may easily be destroyed. We plant out our Daturas in the garden every year, at the beginning of June, in very rich soil, and syringe them d... in dry weather; at the end of September (w... they are covered with buds and blossom) we ... them round with a small, sharp spade to ... size of the pot (or tub) into which they are ... go, which should be at least twelve inc... across. A week later (when they have star... fresh rootlets) they are carefully raised ... placed in their pots, with only one piece ... crock for drainage, and very rich, manurial s... for they are such hungry and thirsty plants t... you cannot feed them too highly. Then th... stand against a north wall for a few days, ... recover, and are well watered daily, after wh... they are taken into a warm Vinery (as we ... to have their flowers in winter), and they go ... opening their flowers there until January, wh... the plants take a rest, starting fresh flow... buds about April, when we give them plenty ... liquid manure until they are planted out ... June. Without a warm, moist atmosphere, th... go to rest now, and remain dormant ... March; but they will then make fresh sho... and do well in the summer. You can ke... them in a cellar if you like, but be sure that ... roots do not get at all dust-dry, although,

begins to deposit living young upon the soft leaves. These young, in their turn, begin to reproduce themselves, without the intervention of a male, for many generations, multiplying with astonishing rapidity. Some of these lice enter the pupal stage, from which they emerge

THE CARRIAGE DRIVE AT TRELOYHAN.

as winged females, and fly to other Hop plants, where they again reproduce themselves asexually. Finally, towards autumn, most of the lice turn into pupæ, and emerge as winged females and males. Some of the wingless females go to ground before winter, and hibernate until they can resume their asexual reproduction on the young Hop, in the spring. In the second cycle, the winged female, after fertilisation by the male in autumn, leaves the Hop, and flies to the Sloes, Damsons, or Plums, where she deposits eggs near the tips of the shoots, and in the forks of the twigs. In the spring these eggs hatch into lice, which, in May or June, develop wings. The winged females then fly back to the Hop, where they reproduce living lice, as before described, for ten or twelve generations, before fresh winged forms are developed. It is the enormous rapidity with which the wingless forms reproduce themselves that constitutes the danger of an attack by the Hop aphis; the whole plant may become completely smothered in lice, if neglected for a week or two." It is when the insects leave the Hop, towards the close of summer, for the Plum or Damson, that the swallows catch and devour them on the wing, and here perform an invaluable service, and the increase in the number of the aphides of late years has been said to be due to the decrease in the number of the swallows. But there is probably another cause. For it has been shown that the presence of Plum trees is necessary to enable the aphides to complete the cycle, yet, in spite of that fact, many Hop growers have planted in their gardens rows of Plums as a shelter from wind. If all Plums were removed from Hop-growing districts, there would, in a few years, be very little trouble with aphides.

September 22nd.—As the photograph shows, the common Harebell, the Bluebell of Scotland, may be used with charming effect as an edging to the borders. If the conditions are favourable, it lasts in flower for a long time—from June to August. There are several varieties—alba (with white flowers), Hostii, and Hostii alba (with flowers larger than the type), and Soldanellæflora (blue, semi-double, with long, narrow petals, which make it look quite unlike the Harebell).

H. C. DAVIDSON.



# Famous Gardeners at Home.

No. 208.—MR. W. MADGE, AT THE GARDENS, TRELOYHAN HOUSE, ST. IVES.

IN the short period of ten years there has been established on the cliffs overlooking the delightful bay at St. Ives a remarkable garden. By the courtesy of Mr. Edward Hain, M.P., who is himself a native of Cornwall, I had the opportunity, in the middle of August, of paying a visit to the grounds which surround his handsome Cornish residence, and whose development, under the capable care of the head gardener, Mr. Madge, he has watched with the closest attention. Mr. Madge resides in a pleasant cottage on the main road, and, as the kitchen garden is adjacent, we repaired to it immediately on my arrival.

"This was made at the same date as the pleasure grounds?" I inquired, as we entered, though, from the appearance of the kitchen garden, it might have been in existence for a much longer period.

"Yes; ten years ago," replied Mr. Madge, "this was a rough field. The wall has, of course, been put up, and though the soil is light and sandy, we can grow some good crops.

MR. W. MADGE.
A well-known "West Country" Gardener.

It is three-quarters of an acre in extent. As you see, the paths are constructed of asphalte, with tiled edges. They save the cost of weeding, as well as look nice. Strawberries may be mentioned among the fruits that do well."

"Which variety is the most satisfactory?"

"Royal Sovereign, both for flavour and as a cropper. But we also grow The Laxton, Sir Joseph Paxton, and Latest of All."

"I see that you have Pears on the south-west wall."

"The varieties are Bon Chrétien, Duchesse d'Angouleme, and Comte de Lamy. On the same wall we have Tomatoes, Veitch's Flying Dutchman and Queen Victoria. Flying Dutchman does well either indoors or out of doors."

"What about Apples?"

"They usually canker, but we have a good crop this year. One of the best dessert and cooking Apples is Loddington's Seedling, and among others are Golden Noble, Lord Derby, Cox's Pomona, Stirling Castle, Bismarck, Peasgood's Nonsuch, Bramley's Seedling, King of the Pippins, Beauty of Bath, and Fearn's Pippin. The wind that troubles us most is the south-east, and last year I moved a lot of Apple trees back, with the result that they are now making the wood better. Of Apples grown on the espalier system, Worcester Pearmain is the best; it has never failed me."

"Is there anything special in the way of bush fruit?"

"I think not. For the size of the garden, we do well with Gooseberries, Currants, and Raspberries, though the birds are a nuisance. The Raspberries are Superlative and Falstaff."

"You appear to make a feature of Onions. At least, they are of a remarkable size."

"I find that it answers best not to thin them. They are quite as fine as if they were thinned. Of course, I do not sow too thickly, and I pull up a few, but systematic thinning is waste. They push each other up as they grow on. During the growing season I put some chimney soot on them twice; that is all. They are spring-sown Onions. The varieties are James's Keeping, Rousham Park Hero, and Ailsa Craig. We get hundredweights off a few yards of ground."

"What other vegetables do especially well?"

"Broad Beans—Veitch's Exhibition Longpod and Seville Longpod; and French Beans—Girtford Giant and Canadian Wonder. Then we have Asparagus (which was planted three years ago, and is doing very well, indeed), Seakale, and Lettuce (All the Year Round, Tom Thumb, and Veitch's Monster Giant). The crop of Peas this year has been grand; the varieties are William Hurst, Early Duke of Albany, Veitch's Western Express, Autocrat, British Queen, and Latest of All. Our Potatoes are grown in plots close to the shore, the varieties being Myatt's Prolific, Ashleaf, Main Crop, and Sutton's Abundance. The Potato disease is practically unknown here."

"You have a little Vinery in this garden?"

"Yes; it was planted in February, last year, and the Vines are making excellent growth. They are Black Hamburgh, Muscat of Alexandria, Buckland's Sweetwater, Golden Hamburgh, Foster's Seedling, and Black Alicante. A portion of the kitchen garden is used for winter bedding, including Wallflowers, Stocks, Silenes, Saponarias, Forget-me-nots, and Polyanthus."

THE ROCKERY AT TRELOYHAN.

"How many Chrysanthemums do you grow?"

"Nearly three hundred. They are mostly Japanese. Here are a dozen of the best:—Godfrey's King, Wilfred Marshall, F. S. Vallis, Thomas Wilkins, Sunstone, Graphic, Carrington, Charles Davis, Miss Alice Byron, Madame Charles Millen, and Ernest Frieres."

"Have you done much Chrysanthemum showing?"

"Not here. But we make a group at the St. Ives show, as an honorary exhibit, with the idea of helping."

"How long is the carriage drive?" I inquired, as we crossed the road and entered the grounds at the far end.

"About half a mile. The whole of the grounds, a small portion of which were made by Messrs. Veitch and Co., of Exeter, before I came here, were constructed out of little Cornish fields. On the right-hand side of the drive are some of the trees which are considered one of the features at Treloyhan."

"Their growth in ten years, on the edge of the cliffs, is wonderful. Which of them do you consider thrive best?"

"Chiefly, Sycamore, Pinus insignis and P. austriaca, Poplar, Beech, the Cornish Elm, and the Turkey and Scarlet Oak, with an undergrowth of Euonymus, Escallonia, and Privet. On the lawn side, the clumps of Rhododendrons, Helen Waterer, Helen Schiffner, Sago, Duchess of Edinburgh, Alexandre Adie, Baron Schroeder, Charles Dickens, Duchess of Bedford, and other named varieties, help to form a screen from the sea, and give the necessary protection; also Escallonias, Veronicas, Griselinia littoralis, Spiræas, and Golden Euonymus. This part of the gardens was only planted eight years ago."

"How high are the trees now?"

"From twelve to eighteen feet. When I started these, there was no soil, and we had to cart five thousand loads, because it was merely a disused mine-burrow. I suppose we put on fifteen inches of clay, and nearly three feet of soil. Then we put up the stove, on which you now see the Mesembryanthemums, the white and yellow varieties."

"And the rockery?"

"That I made at the same time. There are several varieties on the Rose arches. In the vicinity of the dripping well are Veronicas in variety (notably Purple Queen), hardy Ferns, Gentians, a few hardy Cacti (of which the best so far is Opuntia camandrica), and Phormium."

"Which species of Phormium do you prefer?"

"P. tenax throws up the most lovely spikes, and P. Cookianum flowers and fruits freely here, as in other parts of Cornwall."

Passing on to the sloping lawn, I was struck by its exceeding verdancy after a spell of dry weather, and Mr. Madge said:

"I have been using guano lately, and at one time we had cattle grazing here. In the border round the lawn, which shelters it from the sea, there are Abies Nordmanniana, Cryptomeria japonica, Larix leptolepis, Picea excelsa, Preegia, and Prunus Pissardi, Laurestinus, Portugal Laurel, Berberis Darwinii, Aucubas, etc."

"What are the principal flowers in the border?"

"Hydrangeas, Dahlias, Chrysanthemums, and Marguerites. I propose to eliminate many of the commoner things, like Laurels, and plant shrubs of finer quality, such as Azaleas and Camellias."

"I notice that you have Pampas Grass in a round bed."

"And Tree Pæonies. But the latter do not like the winds, and perhaps the sea air is detrimental to them. At present there are only Escallonias, Euonymus, and Oaks at the northern end, but I intend to establish a herbaceous border. There are a few Dahlias in the corner."

"Which do you think the best of the Cactus varieties?"

"Lady Penzance, Maid of Kent, Kaiserin Victoria, Catherine, and Gloriosa do well. We have a number of Pompons."

"Perhaps you could give me the names of some of the shrubs planted in the beds on the lawn?"

"Escallonia Exoniensis, Aralia Sieboldi, Arbutus rubra and unedo, Aucuba japonica, Bucharis patagonica, Choisya ternata, Cotoneaster Hookeri and microphylla, Elæagnus macrophyllus and japonicus variegatus, Embothrium coccineum, Euonymus aureo-variegatus, Garrya elliptica, Griselinia littoralis, Hollies of sorts, Olearia Haastii, Skimmia Fortunei, oblata and Rogersi, Hibiscus syriacus, Lilacs in variety, etc."

"Before we turn into the plantation, you might mention two or three of the specimen trees or shrubs which have made such amazing growth in less than ten years."

"There is a Macrocarpa about thirty feet high, which was three feet six inches when it was planted. One shrub of Berberis asiatica has made a growth of four feet, with nearly forty shoots, in one summer. A Blue Gum, which was five feet high when it was put in, four years ago, is now about thirty feet high.

"The carriage drive nearest St. Ives," continued Mr. Madge, "was part of an old plantation, to which we added the undergrowth. We also planted Elms, Sycamores, and Ash, to take the place of the old trees, with Aucubas, Hydrangeas (blue and pink), Veronicas in

Early Gladioli in the Borders.

variety, and, in the plantation, Escallonias in variety, Privets, Poplars, and Oaks. At the bottom is a Veronica hedge, close to the sea, and not in the least affected by it."

"You have a pretty border close to the lodge."

"Yes; it is made up of Scabiosas, intertwined with Monthly Roses (crimson and pink), edged with Lobelias. The bed close to it consists of Begonias (mixed), edged with white Ageratums. On the lodge, Ampelopsis Veitchii does well."

Retracing our steps towards the mansion, I observed a representative herbaceous border, and I asked Mr. Madge to tell me about the bedding plants, herbaceous and otherwise, which he uses in it.

"They include Phlox Drummondii, Asters in variety, Verbenas, Zinnias, Geraniums of sorts, Godetias, Fuchsias, Antirrhinums in variety, Dianthus in variety, Gaillardia, Helichrysum, Heliotropes, Marigolds in variety, Nasturtiums, Nicotianas, Petunias, Rhodanthe maculata, Salpiglossis, Golden Gem Calceolarias, Pyrethrum, and Lobelia cardinalis."

Entering a small flowering house near the mansion, I noticed Begonias (winter-flowering), Primulas, Coleus, and Browallias, while in frames close by were Tomatoes, Primulas, and Cyclamen.

"You have some interesting plants in the stove," I remarked, as I observed a specimen of Bowstring Hemp (Sanseviera Guincensis).

"Yes; the Bowstring Hemp is rarely seen in the private garden. It is in a 15-in. pot. There are some nice pots of Eucharis amazonica, a promising young plant of Latania borbonica, and several pots of Crotons in variety."

"The Crotons seem to be doing extremely well. Which varieties do you recommend more particularly?"

"I find, among the best, C. Disraeli, Chelsoni, Lady Zetland, Queen Victoria, Weismannii, Johannis, Countess, Angustifolius, Warrenii, and Baroness James de Rothschild. On the roof is Allamanda nobilis, Clerodendron Balfourii, Rondeletia, and one very fine plant, Bougainvillea Sanderiana, which, though only planted last February, is over ten feet high."

"Did you plant the Peach house?"

"Yes; the varieties are Royal George, Noblesse, Violette Hative, Hale's Early, and Dymond. The Vinery I also planted three years ago, and the Grapes are Gros Maroc, Jas. Coleman, Alicante, Madresfield Court, Lady Downe's, and Mrs. Pearson."

"Do you grow many Zonal Pelargoniums in the frames outside?"

"A considerable quantity. We find them very useful for winter decoration. The varieties include Sappho, Dryden, Scott Turner, Rudyard Kipling, W. B. Miller, Hall Caine, Beauty of Poitevine, Mrs. C. C. Tudway, and Fiery Cross. We also grow winter-flowering Carnations and Salvia splendens."

"We have still to see the conservatory."

"And a portion of the grounds. Here," said Mr. Madge, as we again proceeded outside, "is a border which has recently been planted with Begonias, Geranium Bijou, and blue Violas, with a background of various shrubs."

"It is a pretty little nook."

"With the advantage of shelter. The Genista thrives out of doors, and Yuccas also do well. In the nook, also, is a piece of Pinus insignis, which, planted, I think, about twelve years ago, is now twenty-five feet high. The stem at the bottom is fifteen inches through. The various Hollies and Bamboos thrive here."

"When was the conservatory erected?"

"Four years ago. The contents vary, according to the season. Just now they are mainly Begonias (double and single), Gloxinias, Fuchsias, Coleus, Palms, Kentias, Areca rubra, Phœnix reclinata, Seaforthia elegans, and a piece of Tree Fern. In the autumn the Palms remain, but the flowers are Zonal Pelargoniums, Cyclamen, Primulas, Carnations, winter-flowering Begonias, and Chrysanthemums. The conservatory, of course, is heated."

"You have a charming bed facing the tennis lawn?"

"It is made up of Calceolarias (Golden Gem), Iresines, with Lobelia cardinalis, in the centre, and an edging of blue Lobelias. In the border facing us are, chiefly, pink Hydrangeas and Montbretias."

"Then there is the Rose garden below."

"Roses do not, as a rule, flourish greatly in Cornwall, and though we planted a large collection ten years ago, the only varieties now healthy and flowering freely are Souvenir de la Malmaison, Baroness Rothschild, Alfred Colomb, Marie Baumann, and Boule de Neige. Another Rose that thrives here is William Allen Richardson."

"Now, about your own experience, Mr. Madge, which I know includes a considerable amount of successful exhibiting?"

"I was for five years in various Exeter nurseries, and then for four years under Mr. Rowland, gardener to Mr. Brock, in the same city. From Exeter I went as head gardener to Mr. Byron, at Culver, and, afterwards, in the same capacity to Mr. Turner, at Cullompton. I remained at Cullompton for three years, and

came here ten years ago. While I was at Cullompton I did a good deal of showing, at Taunton and Tiverton, with miscellaneous groups of plants, Chrysanthemums, and cut flowers, and plants for table decorations; at Exeter, Dracænas, Cyclamen, Hyacinths, Cinerarias, Tulips, Primulas, Arum Lilies, Chrysanthemums, and miscellaneous groups. I have also since shown, at the Royal Cornwall Show, at St. Ives and Penzance, Fuchsias, Ferns, Palms, and collections of stove and greenhouse plants."

ALFRED WILCOX.

# Letters from a Lady Gardener.

## No. 164.—BULBS IN THE GARDEN.

DEAR KATE,—I hope you will not forget to order some bulbs for your garden, as well as for the house. So many people purchase a few Hyacinths and Narcissi, but very little else, yearly; so that it is no wonder that English gardens are too often lacking in colour in the spring, when they should be a glorious mass of rich tints to gladden one's eyes after the winter sleep of Nature.

Tulips, for instance, are robed in all manner of gorgeous satins, from deepest crimson or gold to purest white, and the May Tulips are grand in the borders at that time, besides which they are far better for cutting than the dwarf early Tulips which are so much more grown. If you don't possess plenty of them, I should advise you to get some at once, and plant them in broad masses, for you will be delighted with their beauty in the spring. The king of them all is called Gesneriana major; its blossoms are large, and in a resplendent colour which is indescribable, for it is neither crimson nor scarlet, but brighter than either, with a large, metallic, blue-black blotch at the base of each petal—altogether a magnificent flower.

Then, by way of contrast, there is Picotee, in creamy-white, edged with pink, a lovely blossom of most elegant shape; Bouton d'Or is in golden-yellow, and almost globular; Carnation is in primrose-yellow, splashed with crimson, and there are many others which are well worthy of a place in any garden, but I don't care for the scarlet and yellow-striped varieties, which are rather too garish for my taste. The Parrot Tulips are very richly coloured, too, but are not garish, for their tints melt into one another in a most artistic way, and there is not too much yellow in them; they have fringed edges, and their great blossoms droop from their own weight, so that they look remarkably well in a basket, or on the edge of a raised border.

Then there are the early Gladioli, and especially the pure white Bride Gladiolus, which is much more hardy than it is given credit for, and would probably do well in any garden which has well-drained, light soil, with plenty of sunshine. Here it grows like a weed, and we are obliged to dig up the great clumps of corms which it makes, every third year, because they are then too thick to do their best. In this way we supply ourselves with plenty of fine corms for forcing under glass, besides which we plant the rest of the raised corms in fresh places, each three inches from the next, and the same distance below the soil. For the first few years we covered the places where the corms were planted with little piles of fine coal ashes, to keep out the frost, but when we found out that those Gladioli which we omitted to cover (forgetting where they were) did just as well without the ashes, we left off troubling about them. But they do best in a dry, raised border, open to the south-east, and sheltered from the west by a hedge, and the gravel soil here suits them well. If we had a clay soil, or a damp garden, we should dig a hole two feet deep under the corms, and drain the position well with broken china and glass, covered with rough turves (grass side downwards) before filling the hole with a mixture of loam, gravel, and burnt material, and it might be safer then to add a conical pile of ashes over the corms, to keep off the worst of the rain and frost.

I suppose you have the prunings of the fruit trees and shrubs, and other rubbish, burnt in a garden fire occasionally? Whenever this is done here, we have the ashes put into a box for careful use, as they are invaluable for mixing with composts for bulbs, Chrysanthemums, Roses, fruit trees, etc., and it is a pity to bestow them all on the Cabbages in one spot, as gardeners often do. This burnt vegetable refuse is full of nourishment for plants, besides being purifying to the soil, and so preventing much mischief in the winter, when roots of many kinds are apt to perish in the cold, wet soil, especially when newly planted. Liliums we treat in the same way as early Gladioli, for they, too, need care when planted in the borders, but I have quite given up planting Lilium bulbs in the garden the first year I possess them, because they are almost entirely without their lower roots when they arrive, and they need the

LILIUM AURATUM PLATYPHYLLUM.

greatest care to survive the terrible mutilation they have been subjected to, if they are ever to get over it. So we plant our new Liliums most carefully in well-drained pots of good, light loam (leaf-mould and peat, without manure, but with plenty of charcoal and sand), placing them deep down in the pot, and only covering them about an inch, except that we fill up the rest of the space with a layer of moss, and then ashes, until growth begins, when richer top-dressings are substituted for these. The poor bulbs, without their lower roots (which should never be allowed to shrivel from dryness, much less cut away) are kept in a cold frame, these pots being sunk to the rim in ashes all the winter, and must not be forced in any way. The first summer their flowers are not very good, generally, and the foliage poor, but what can one expect after the cruel treatment they get in Japan and Bermuda, before they are packed for the voyage to England? However, with good care, plenty of water, and sunshine in summer, and enough moisture after flowering to prevent their foliage from shrivelling (so as to give it time to ripen away naturally in the sunshine), the bulbs will make fresh roots, and the following season they produce splendid heads of blossom, either in pots or in the border, to which they can be transferred in March, if preferred. These directions apply to Lilium auratum, and its fine varieties—platyphyllum and rubro-vittatum; Lilium speciosum, in pink, crimson, and silvery-white (roseum, rubrum and Kraetzeri album); Lilium Henryi, an apricot Lily which has attained the height of eight feet, with eighteen flowers on a spike, in my garden this year, and other semi-tropical Lilies; but the Bermuda Lily (L. Harrisi) and the Nilgiri Lily (L. Neilgherrense) we cultivate under glass from year to year in the same way, and we find our own home-grown bulbs, both in the garden and in pots, much more satisfactory than those we can get from abroad, for their thick, fleshy roots are strong and fine, having never been tampered with in any way. We grow on the tiny bulbs which form at the sides of the larger Lilies for several years, until they attain a flowering size, and they are then strong and hardy, producing large heads of blossom. I advise you to try this plan, for we find it most satisfactory. I have left scarcely any room to mention Irises, which, as you know, I think, are especial favourites with me, as well as Liliums; but don't on any account leave them out of your list for garden planting. The lovely Spanish and English Irises will grow in any garden, and they make a grand show in spring, especially if planted in groups, not only two or three bulbs together. Few flowers are better for cutting, or last longer in water, so be sure to have plenty of them; and don't put off ordering your bulbs until late in the season, for the poor things do not enjoy a long residence in paper on a dry wooden shelf, and they do much better if planted early than late. You might add some of the best of the Montbretias, too, for they are so bright in the autumn garden, and they increase and multiply themselves with rapidity, when once established, so that they are very desirable garden plants, but their corms need to be taken up every third year and replanted four inches apart, for they soon become so thick that they do not blossom well if left too long in the same place.

Your friend, I. L. R.

# GARDENING EXPERIENCES.

## Contributed by Readers of "Garden Life."

**A free subscription for one year (value 6s. 6d.) will be given to the reader every week who sends the most interesting contribution to this column:**

**The free subscription this week is awarded to A. Frost.**

### A LONDON ROOF-GARDEN.

I WONDER if my experience of this year will be sufficiently interesting to find a place in your valuable paper, which has helped to make my gardening efforts so successful? At the present time I am constantly being complimented upon my perfect picture of a garden, of which I send you a photo. Perhaps you may find a place for it in GARDEN LIFE.

Unlike numbers of your readers, I had no garden ground, but, being a lover of gardening, I thought that I would try and make one on the roof of my shop and kitchen, which was the only available space. The roof is very open and bleak, and surrounded by smoky chimneys.

However, I set to work, and obtained some boxes and bored holes in the bottom. I placed crocks over them and a little moss, and filled them up with leaf-mould, etc. I bought some plants and seeds, such as Phlox, Chrysanthemums, Stocks, Virginian Creeper, Musk, Dahlias, Foxglove, Runner Beans, Virginian Stock, Begonias, Geraniums, Sweet Peas, Sunflowers, Petunias, Asters, Ferns, Michaelmas Daisies, Fuchsias, Lilies, Pansies, etc. These, you will see by the photo I send you, make a charming display.—R. J.

Oxford Dictionary of National Biography

**Markham, Ernest** (1881–1937), *gardener and writer on horticulture*
by A. A. Sclater
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**Markham, Ernest** (1881–1937), gardener and writer on horticulture, was born at Newbottle, Northamptonshire, on 8 March 1881, the third son in the family of at least three sons and four daughters of William Markham (1852/3–1946), agricultural labourer and shepherd, and his wife, Dinah Diana, *née* Astley (1853–1922). From his youth he worked in a succession of large gardens: Newbottle Manor, Northamptonshire; Crown Court East, Worcester; The Dell, King's Norton, Birmingham; and Wortley Hall, Sheffield. Having been the leading foreman at King's Walden Bury, Hitchin, he became head gardener to Lady Chichester at Arlington Court, Devon, about 1900. From 1905 to 1910 he worked for Lady Marcus Beresford at Bishopsgate, Englefield Green, Surrey. He was a widower at the time of his marriage, at Whittlesey, Cambridgeshire, on 10 July 1912, to Miriam Elizabeth (1887–1953), daughter of William Price, coachman.

In 1914 Markham became head gardener to William Robinson (1838–1935) of Gravetye Manor, near East Grinstead, Sussex, living with Miriam, his wife, at The Moat, a cottage on the estate. He loved Gravetye and directed more than a dozen gardeners in the productive and ornamental departments. From 1928 the ageing Robinson conferred upon him sole responsibility for managing and developing the garden, and at Robinson's death Markham was left with the life possession of Moat cottage. He continued to manage the famous Gravetye Garden, refusing many offers of employment elsewhere. In 1933 the Royal Horticultural Society recognized his services to horticulture by making him an associate of honour, and in June 1935 he read a paper on ornamental climbing plants to the society.

Markham contributed regularly to *Gardening Illustrated* and wrote two books, *The Large and Small Flowered Clematis and their Cultivation in the Open Air* (1935) and *Raspberries and Kindred Fruits* (1936). His contributions to the later editions of William Robinson's *English Flower Garden* included sections on lilies and clematis. He kept a large collection of clematis varieties and is commemorated by the hybrid clematis ‘Ernest Markham’ and *Clematis macropetala* ‘Markham's Pink’. He died of a heart attack on 6 December 1937 at the Queen Victoria Cottage Hospital, East Grinstead, survived by his wife; he was buried at West Hoathly, Sussex, on 9 December. Obituaries described him as a modest and diffident man with an encyclopaedic knowledge of plants.

A. A. SCLATER

**Sources** M. Allan, *William Robinson, 1838–1935: father of the English flower garden* (1982) · Desmond, *Botanists · Gardeners' Chronicle*, 3rd ser., 102 (1937), 439 · *Gardening Illustrated* (11 Dec 1937) · *Proceedings of the Royal Horticultural Society*, 58 (1933) · *Proceedings of the Royal Horticultural Society*, 60 (1935) · William Robinson's will, 1935 · B. Massingham, ‘William Robinson: a portrait’, *Garden History*, 6/1 (1978), 61–85 · census returns, 1881, 1891, 1911 · b. cert. · m. cert. · d. cert. · *CGPLA Eng. & Wales* (1938)

**Likenesses** photograph, repro. in *Gardening Illustrated*, p. 730 · photograph, repro. in Allan,

*William Robinson*, 197

**Wealth at death** £3850 18*s*. 10*d*.: resworn probate, 15 Feb 1938, *CGPLA Eng. & Wales*

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A. A. Sclater, 'Markham, Ernest (1881–1937)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Sept 2014 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/48209, accessed 13 Nov 2014]

Ernest Markham (1881–1937): doi:10.1093/ref:odnb/48209

Oxford Dictionary of National Biography

**Marnock, Robert** (1800–1889), *landscape gardener*
by Gordon Goodwin, *rev.* Audrey le Lièvre
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**Marnock, Robert** (1800–1889), landscape gardener, was born on 12 March 1800, at Kintore, Aberdeenshire, the son of Peter Marnock, a farmer. He is first recorded as a gardener at Bretton Hall, Yorkshire, and while there he won the competition to design the Sheffield Botanic Garden, which he laid out in 1834; he was also appointed its first curator. While at Sheffield he was involved in the publication of a number of gardening magazines: from 1836 to 1842 he edited the monthly *Floricultural Magazine*, and for several years, beginning in 1845, he edited the weekly *United Gardeners' and Land Stewards' Journal*. With Richard Deakin, he wrote the first volume of *Florigraphia Britannica, or, Engravings and Descriptions of the Flowering Plants and Ferns of Britain* (1837). On 17 October 1838, at the Independent Chapel, Welford, Northampton, he married Anne (1810/11–1885), daughter of Benjamin Hobson, dissenting minister. They had two daughters and a son.

In 1840 Marnock won a second competition to design the garden of the Royal Botanic Society in Regent's Park. The design kept ‘the number of walks to a minimum’, left ‘the central mass of the garden an open lawn’ and screened ‘the specialist gardens behind shrubberies and an elevated rockwork; the garden was bisected by a straight walk leading to the great conservatory, thus imposing an axis of symmetry’ (Elliott, 40). It led to the recognition of Marnock as one of the leading landscape gardeners of the day. During much of his time at Regent's Park he was aided by the Irishman William Robinson, most of whose early work after his arrival in England was carried out under Marnock's aegis. As curator of the garden, Marnock also successfully managed the exhibitions at the Royal Botanic Society's gardens. He relinquished his post there in 1862, after which date he practised as a landscape gardener.

Marnock's style was that usually described as ‘natural’ or ‘picturesque’, while his work was sound and severely economical. The maxims of his approach are expressed in extracts from letters compiled by Mungo Temple in 1870. Among the practices Marnock objected to were ‘The dotting of trees and shrubs on lawns like sentinels … or placing anything on a lawn at all which in any way interrupted the view or defaced the space’, ‘formal avenues, where they could easily be dispensed with’, and ‘roads to the dwelling house, taking long out-of-the-way turns, where they could be concealed and the distance shortened’ (Elliott, 168). As a general principle, he sought the easy, unimpeded movement of the eye over the scene ahead. His chief designs are those at Greenlands, Henley-on-Thames, made for the Rt Hon. W. H. Smith; at Hampstead, for Sir Spencer Wells; at Possingworth, Sussex, for Lewis Huth; at Blythwood, near Taplow, for George Hanbury; at Brambletye, near East Grinstead, for Donald Larnach; at Leigh Place, near Tonbridge, for Samuel Morley, and at Weston Park, Sheffield; Park Place, Henley; Taplow Court; Eynsham Hall; Sopley Park; and Montague House, Whitehall. His work for Prince Demidov at San Donato, near Florence, in 1852, added greatly to his reputation, and to the increasing taste for English gardening on the continent.

His last public work was the Alexandra Park at Hastings, laid out in 1878. He retired in 1879, leaving his business to Joseph Weston, although he continued to give professional advice on landscape gardening until the spring of 1889, in which year he designed his last private garden, that of Sir Henry Peck at Rousdon, near Lyme Regis.

Marnock spent the last summers of his long life in Aberdeenshire with his two daughters, rambling over the high mountains in search of wild flowers. He died at his home, 1B Oxford and Cambridge Mansions, Marylebone Road, London, on 15 November 1889. In accordance with his wishes his body, after a religious service, was cremated at Woking, and his ashes were deposited in his wife's grave at Kensal Green cemetery on 20 November.

GORDON GOODWIN, *rev.* AUDREY LE LIèVRE

**Sources** 'Robert Marnock', *Gardeners Chronicle* (29 April 1882), 567–8 · *Gardeners' Chronicle* (23 Nov 1889), 558 · *Gardeners Magazine* (23 Nov 1889), 733–44 · private information (2004) [Henry Vivian-Neal] · *The Times* (21 Nov 1889) · B. Elliott, *Victorian gardens* (1986) · m. cert. · d. cert. · *CGPLA Eng. & Wales* (1889)census returns, 1851, 1861, 1871
**Archives** Essex RO, Chelmsford, MSS relating to laying out of gardens at Hassobury
**Likenesses** T. B. Wirgman, oils, exh. RA 1879, Royal Horticultural Society, London
**Wealth at death** £3167 11*s.* 6*d.*: probate, 12 Dec 1889, *CGPLA Eng. & Wales*

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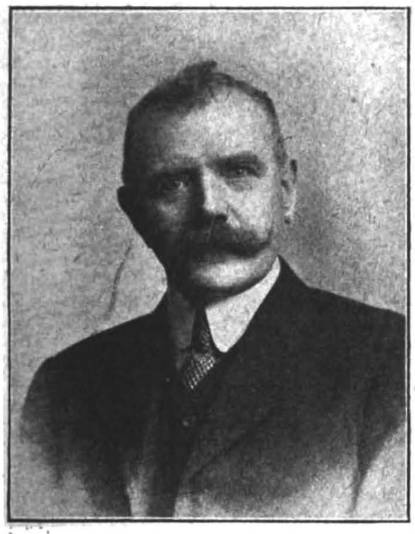
Gordon Goodwin, 'Marnock, Robert (1800–1889)', rev. Audrey le Lièvre, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2007 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/18084, accessed 13 Nov 2014]

Robert Marnock (1800–1889): doi:10.1093/ref:odnb/18084

live in a town, a place which I have been given to understand the devil made, though I am not sure that he lives there exclusively; if you can, you may live in the country, which had a very different origin.

### HOUSE-HUNTERS AND THEIR WAYS.

November 18th.—Even such a depressing business as receiving possible purchasers of a place to which one has grown attached is not



MR. G. MARTIN.

without its humorous side. One visitor arrived a few minutes after eight in the morning. I interviewed him through an upper window. It turned out that he had received the particulars from the agent three months before, and then had rushed down at that unconscionable hour. He was an Irishman. Another wanted to live by the seaside, where he could keep a boat. As we are twenty-five miles from the sea, I could only point out my pond, and regret that it was nearly dry. The majority have been ex-Army officers, going in for pigs or poultry. I told them all the place was quite unsuitable for them. They could spend money here if they wished, but could not make it. One of them mapped out the lawns, for his various pens of fowls, a truly horrible performance. One of my friends, going to inspect a house which had been advertised, had a quaint experience. After having been conducted round the tiny garden, he said, "But a tennis lawn is mentioned. Where is it?" "You are standing on it," replied the owner, pointing to the little grass plot under his feet. "And I understand there is a croquet lawn," said my friend, rather disconcerted. "We have played croquet here, too," was the reply. Lawn is rather an elastic term.

### FLIES AND WASPS.

November 19th.—Two of the drawbacks of the country in summer are flies and wasps. Neither have been troublesome this year; indeed, I did not see a single wasp. My man said he had destroyed a nest early in the season, but when I inspected it I found that the insects in it belonged to a different species, a much smaller species than the one that usually becomes such a nuisance when the Pears and Plums are ripe. The good that wasps do is apt to be overlooked. They carry to their nests an immense number of grubs and caterpillars to serve as food for their young. The gardener has not had this help during the past season. It is to be hoped that we shall escape the consequences. The common housefly breeds in rubbish heaps, and the mosquito and gnat in water butts or ponds. The former can be reduced in number, by burning the rubbish, and the latter, where it is practicable, by covering the water with a thin film of oil.

H. C. DAVIDSON.

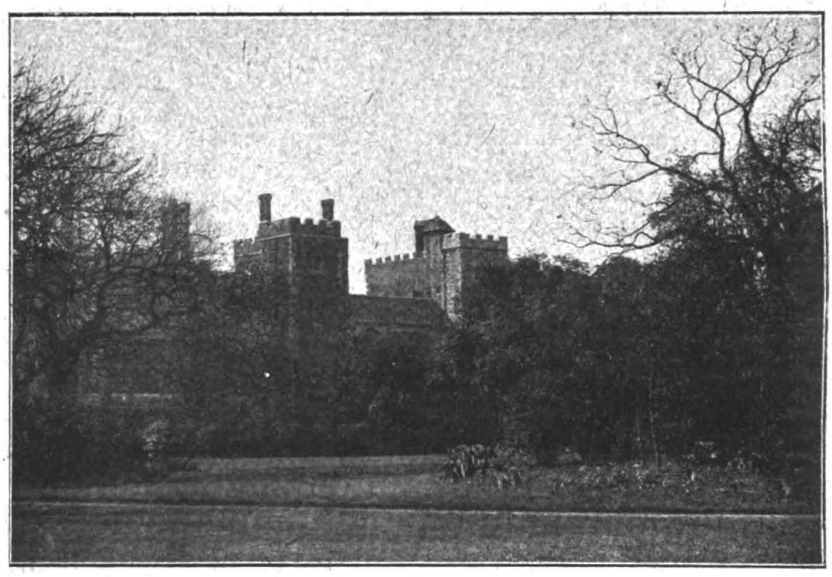
## Famous British Gardens.

### Lambeth Palace, London.

*Interview with Mr. G. Martin.*

FOR a period of seven hundred years Lambeth Palace has been the London residence of the Archbishops of Canterbury, and has played a part in our country's history. Within its walls have been held gatherings whose decisions have vitally affected religious thought and church government; and these same walls have also served as a prison to ecclesiastical reformers whose views failed to commend themselves to those in authority, also to politicians and others who made themselves obnoxious to the ruling powers. It has suffered, too, at times of tumult, as when, in 1381, Wat Tyler sacked it, beheaded the Archbishop, and burned the books and registers; and again, during the Civil War, when Cromwell's soldiers were quartered in the chapel.

But interesting as are the venerable buildings, it was not for the purpose of looking over them that I paid a visit to Lambeth on a lovely afternoon early in October, but to see the gardens, for which I had received the courteous permission of Mrs. Randall Davidson. Mr. George Martin, who has been in charge since 1916, showed me round, and pointed out many of the leading features.



A VIEW OF LAMBETH PALACE FROM THE GARDENS.

In ancient times this riverside parish of Lambeth was largely marshland—its name was then Lamberthithe, indicating its low-lying character—and not far from where the Palace now stands the Romans constructed a plank highway to the higher ground at Brixton and Clapham. From the fact of its marshy origin, and its proximity to the Thames, it is a district particularly subject to fogs in winter, and even when these are absent the neighbouring pottery manufactories emit fumes by no means favourable to vegetation. It will, therefore, be understood that gardening here is carried on under difficulties.

The area of the grounds used to be about sixteen acres, and a broad terrace fronted the water-side, but this, with an avenue of Elm trees, known as the Bishop's Walk, was taken when the Thames Embankment was made. More recently, a large portion has been converted into a public park, which is much appreciated by the inhabitants of this crowded locality, and is under the control of the London County Council.

The principal entrance is at the foot of Lambeth Bridge, through the gateway of the tower built in 1490 by Archbishop Morton. At the end of the narrow lawn is seen the Lollard's Tower; but we turn sharp to the right, under the archway by the famous library, and emerge upon the wide lawn, in front of the palace, which looks due south. Here, in an angle formed by the library and the chapel, Mr. Martin called my attention to five ancient Fig trees, which are among the treasures of the gardens.

### ANCIENT FIG TREES.

"Last year," he said, "was the first year they ripened fruit since the Archbishop came here in 1903. We gathered best part of a bushel. This year it has borne none; but there are many small fruits on which may mature next year. All the trees have been 'doctored,' and the hollow trunks filled with cement. One fell down some years ago, and has struck root at the point of contact with the ground."

There is no attempt at bedding on this side, save for a little near the entrance, where Geraniums are used in summer. They had, however, been taken up, and spring bulbs were to take their place.

It was only when we had passed to the north of the palace that the possibilities latent in a town garden were revealed. On the right, or east side, is a wide herbaceous border, of considerable length. At the far end is an extensive shrubbery, woodland, and wild garden, and nearer are broad lawns, well fringed and broken up by trees, conspicuous amongst which—and appropriately, perhaps, for an Archbishop's garden—are many old specimens of the Tree of Heaven, Ailanthus glandu-

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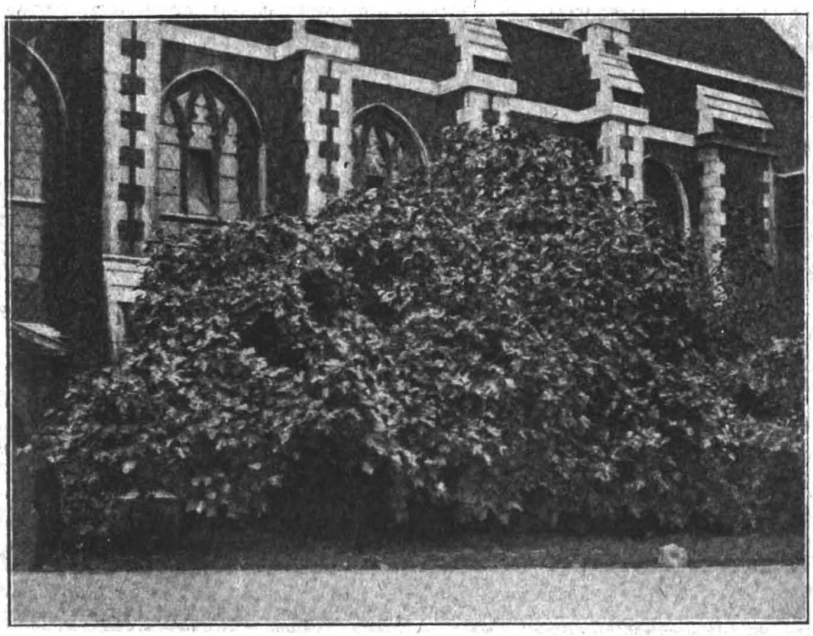
losa, planted a long time ago, and now outgrowing the limits of their surroundings. Three fine examples of Catalpa bignonioides are likewise to be found at one corner of the lawn.

Concerning the herbaceous border, to which we first turned our attention, Mr. Martin informed me:



THE ANCIENT FIG TREES AT LAMBETH PALACE.

"Red flowers are scarce, and we have a difficulty in supplying them. Geum Mrs. Bradshaw does fairly well, and so does Sweet Bergamot, Monarda didyma Cambridge Scarlet. But we should like to get more of this colour."

"You have a fine selection of Michaelmas Daisies in bloom."

"Yes; we have planted a large number of varieties, and, as you see, they make a very good show. Phlox has almost finished, but a little earlier it is very effective, and gives us plenty of bloom in late summer. Delphiniums are another success. They flower well in early summer, and I then cut them down, and they send up another lot of flowers. Japanese Anemones give no trouble, and are very satisfactory, while Antirrhinums come in useful wherever there is a blank space. Chrysanthemum maximum thrives like a weed; Galegas are good; and Erigeron speciosus never fails. But we cannot get red flowers, to give brightness. Potentillas are all right the first season; afterwards they come very small and weak. Lychnis chalcedonica and Arkwrightii will not do at all. There is one thing, however, that deserves mention—that is the old-fashioned Spiderwort, Tradescantia virginica, which was brought to England by an old resident of Lambeth, John Tradescant, who was gardener to Charles I. The flowers are bright purple, and though they do not last long, they come on in quick succession."

I noticed also, as we went along, many healthy-looking clumps of Irises; and, still in bloom, Solidago canadensis (Golden Rod). And then, half way down, came a break in the border, where the ground was filled instead with Parsnips, Potatoes, and Carter's Blood Red and Crimson Ball Beet. These replace herbaceous plants, which were turned out to increase the food supply.

Turning off to the left at this point, we crossed the lawns, leaving the woodland at the end unexplored. Vegetable plots occupy a good part of the lawn just here, allotments having been provided for several of the servants. Especially fine was a bed of Onions on Mr. Martin's own plot.

"The variety," he said, "is Rousham Park Hero. It does better here than Ailsa Craig, which does not ripen off so well."

### ROSES A FAILURE.

"You have tried Roses," I remarked, as we passed in turn the outskirts of the wood and shrubbery (we had now crossed to the other side of the grounds), and noticed a few making a brave attempt to flourish.

"Yes," was the answer; "but they don't do at all well. The soil is light, and that is not in their favour; still, the fogs and the factory fumes are the chief obstacles to success. We have tried a number of varieties. Some of the Ramblers give a few blooms; Gruss an Teplitz and Snow Queen or Frau Karl Druschki also do likewise; for the most part the others are a failure."

These Roses are given the best positions available, and though in front of shrubs, have a clear root run and as much sun as a London garden usually gets. The shrubbery and the wild garden, however, in a measure compensate for their absence. The idea of distance and space is well exemplified, and each turn in the path reveals a new and attractive feature. Now it is a clump of the Cow Parsnip, Heracleum villosum, which Mr. Martin points out as a splendid subject for the wild garden. It is overshadowed by trees, but reaches a height of nine feet or so, and its immense heads of whitish flowers justify its common name of the Cartwheel Flower. Near by, Polygonum cuspidatum also proclaims its usefulness. Further on a group of Hollyhocks comes in sight, backed by trees and shrubs; elsewhere it is Michaelmas Daisies, or Golden Rods, or other autumnal flowers.

"Do you get many spring flowers?" I asked.

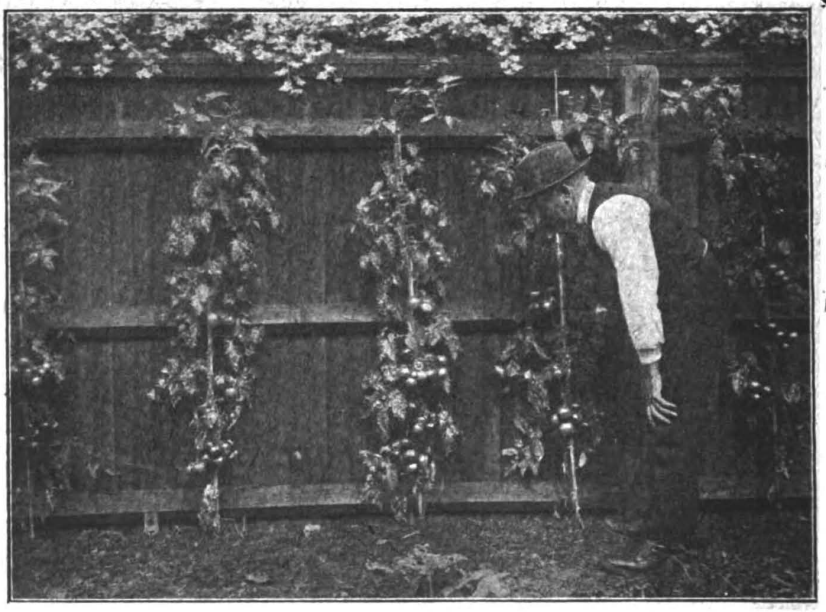
"Nearer the house we have Daffodils under the trees, and Crocuses in the border. Primroses will not do at all; but on the other hand, Lilies of the Valley seem to thrive better here even than in the country. Further round there is a long border of them under shrubs, and it is a mass of bloom in the season; indeed, I have not seen anything so fine elsewhere."

"The shrubs, I take it, were planted with an eye to colour effects?"

"I expect they were; of course, they were all planted many years ago, before I came here. Prunus Pissardii colours up well, and Golden Privet is clean and bright; but there is nothing of especial note. We have several specimens of the Sumach, but they do not take on the autumn tints as they do in the country."

### A PLEASING SHRUBBERY.

As we get nearer to the palace the paths become more numerous, giving many glimpses of the picturesque old building, and at the same time affording pretty views from the windows. Hereabouts, too, many herbaceous plants in front of the shrubs add a brightness to the scene. Strong clumps of Galega, for example, are noticed in one place; Hollyhocks in another; Statice latifolia elsewhere; Polygonum amplexicaule bears its crimson spikes in late summer; Funkias of sorts likewise thrive. Tiger Lilies, I was informed, do exceedingly well, but the old white garden Lily cannot be induced to thrive. Bamboos are not wanting, groups of Arundinaria Metake being particularly noticeable; and there is a large old specimen of Colutea arborescens, the Bladder Senna, which is hardy here.



OUTDOOR TOMATOES IN THE KITCHEN GARDEN AT LAMBETH PALACE.

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We had now reached the sunk lawn immediately behind the palace, having made a circuit of the grounds. The sloping bank is full of Crocuses, Muscari, and other spring bulbs; while a border on the right, leading up to the north side of the Lollard's Tower, had Ten-week Stocks, Salvia splendens, and Antirrhinums for its principal contents.

Throughout our walk, the fact was clearly evident that deciduous subjects do best in this neighbourhood, escaping the worst of the winter's fogs. The same fact was borne out in the kitchen garden, to which we next turned our steps. This kitchen garden deserves special attention, for it is one of Mr. Martin's most successful efforts to overcome the difficulties incident to a deleterious atmosphere. It is about half an acre in extent, and there is one tiny greenhouse and a four-light frame. The soil is a good black loam, of an alluvial character, but very much on the light side, so that it dries out quickly. Farmyard manure is, needless to say, unobtainable; and recourse is had to road sweepings, which fortunately are easily obtainable, as also is leaf-mould, the trees in the grounds supplying far more than the land requires.

### GOOD VEGETABLE CROPS.

"Here, again," said Mr. Martin, "we are handicapped by the factory fumes and the fogs of winter, and we cannot raise anything in late summer or autumn; everything has to be sown in spring. We cannot even grow spring Cabbage."

"You manage, then, to get crops of excellent quality and size in the time at your disposal. These Cauliflowers, for instance, are remarkably fine, and would not discredit a place in the heart of the country."

"Cauliflowers do extra well here. The variety is Carter's Early Mammoth, and we grow four hundred every year."

"You have also some good rows of Broccoli."

"That is another crop that is very satisfactory with us. There are two varieties, Carter's Champion and Mammoth Spring White."

"Are you subject to more than the usual run of pests?"

"The caterpillar is very severe on the Cabbage tribe, but we do not suffer with club-root. The Onion-fly is a pest from which we are free."

"Do you grow many varieties of Onion?"

"I have tried several, but find Rousham Park Hero is best of all. There are only two rows of Ailsa Craig, which makes good bulbs, but they do not keep well, whereas Rousham Park will remain good till April. These are all spring sown."

### REMARKABLE TOMATO CROPS OUTDOORS.

I had already noticed some splendid Tomato plants on the fence facing south, and we next walked over to get a closer view of them. Each plant was very short-jointed, and carried seven or eight trusses, with fifteen to eighteen good-sized fruits to a truss. In answer to my questions, Mr. Martin said:

"They are raised in heat in spring, in the usual way, and are planted out during the last week in May. I let them set about eight trusses, and stop them at the end of July. The variety is one of my own raising, a cross between Carter's Sunrise and Tuckswood Favourite. I have grown it now for a few years, and it is always as prolific."

"Have you raised any other varieties of vegetables?"

"There is this Runner Bean—though that is rather a matter of selection"—and Mr. Martin indicated a row where the plants were carrying pods fully fifteen inches long. Then he went on: "I brought the seed with me when I came here three years ago. In 1916 I had a row of Sutton's Prizewinner next to another of Best of All—both varieties noted for their length of pod. I imagine the bees cross-fertilised the flowers, for next year, when I sowed the seed I had saved, some of the plants had characteristics of both varieties, and seemed superior to either of them. I again saved seed from some of the best of these plants, and do so every year. The pods, as you see, are very large and fleshy, and the plants bear till quite late in the season. Last year seed was rather scarce; so to make up I had to fall back on some of the 1918 seed which I had by me."

"Was there any difference between the plants of the 1918 and 1919 seed?"

"The older seed was slower in germinating, but only by a couple of days; otherwise there was no difference."

"Do you see many bees in Lambeth? How are the Beans fertilised?"

"Bees are very scarce, but I keep the plants well syringed, and get a good set."

"And what Potatoes do you find do best?"

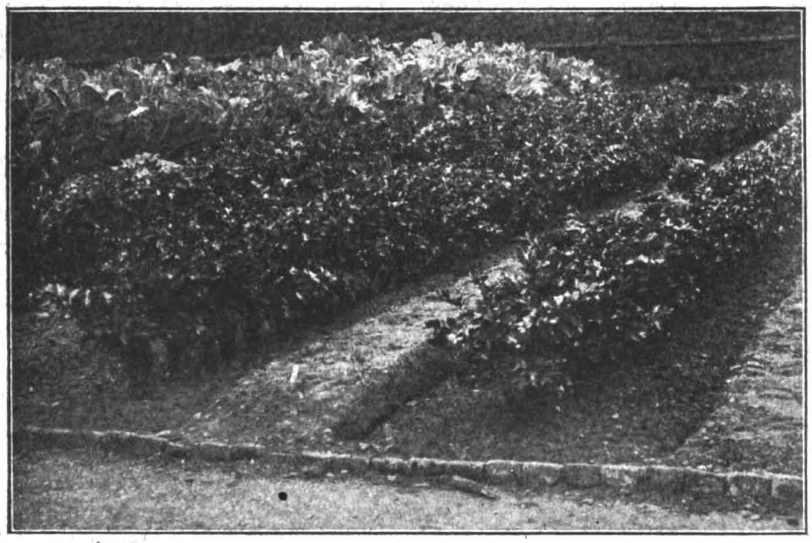
"After trying several varieties, nothing succeeds so well as British Queen. It is a splendid cropper, and we have very little disease. King Edward is no good with us."

"With your dry soil, how do you manage with Turnips?"

"They are not altogether successful; but we get splendid crops of the garden Swede, which is greatly liked, and forms big roots, though the foliage, as you see, is spoiled by the fumes from the factory."

"How do other types of Beans fare?"

"We have had a marvellous crop of Broad Beans, of which we grow two varieties, Carter's Broadsword and Green Leviathan. We also grow a lot of the Dutch Brown Bean, which was distributed by the Royal Horticultural Society. This is a splendid cropper, and of delicious flavour. It is used both in the green state and dried."



GOOD ROWS OF CELERY IN THE KITCHEN GARDEN AT LAMBETH PALACE.

Looking around, I was struck by the promising appearance of the rows of Celery—Carter's Giant Pink—then undergoing the final earthing-up; also the Broccoli already mentioned, which was in a raised bed, about which Mr. Martin remarked:

"This bed was made up for Asparagus, as I wanted to make up a new one, but the sparrows utterly destroyed it, though the existing bed is left alone, and gives us some splendid crops. Sparrows are a great nuisance here, and among other things, altogether ruin the Gooseberries by picking out the buds."

"Have you any fruit trees?"

"On the fence there are several espalier Apples—Crawley Reinette, Annie Elizabeth, Lady Henniker, The Queen, Warner's King, and others. They did well last year, but did not flower this season. However, they have set their buds nicely for next year, so there are hopes of a good yield, if the weather is not too unfavourable."

Vegetable Marrows were practically finished, but had been highly satisfactory; and Cucumbers—grown in the frame over a sunk bed of manure—had likewise been profitable.

From the kitchen garden we went to the shed where the Potatoes and Onions are stored, and then made our way to the laundry yard, where Cabbages, Seakale, and Artichokes are grown in the borders. This concluded a most interesting afternoon, which had abundantly demonstrated how much can be done, both with flowers and vegetables, under the unpromising conditions which obtain in the heart of a great city.

It was difficult to get Mr. Martin to talk of himself, but I gathered that, before coming to Lambeth three years ago, he had been head gardener to Mr. S. F. Edge, at Gallops Homestead, Ditchling, Sussex; and previously had been with Mr. Hughes, at The Holt, Warlingham; Mr. Bulteel, of Ascot; and before that was outside foreman with Sir R. Farran, of Rockhurst, West Hoathly.

W. J. CHITTENDEN.

## *SPIRÆA BULLATA.*

For the rock garden, or the front of the shrub border, the pretty little Spiræa bullata has many claims. It is a slow-growing shrub, flowering when quite small, and looking well at all times. It reaches a height of three feet or so, but usually takes a good few years to do so. For ordinary purposes this slowness of growth is a great advantage, and the owner of a rock garden will appreciate this tardiness all the more. In fact, it is well to keep this Spiræa from growing to more than two or two and a half feet, as otherwise it is apt to become a little coarse-looking—a feature not in consonance with its appearance when of moderate size. It can be cut back after blooming, to keep it in shape and of suitable height.

It is a neat shrub in every way, and is much admired because of its pretty, small foliage, which has given it the name of bullata, and the synonym of crispifolia, under which title it is still frequently catalogued. It appears to be thoroughly hardy—at least, I have never heard of its being killed, except through lack of ordinary care. The little red flowers are in flattish corymbs, and combine with the pleasing foliage and neat habit, to form a desirable subject for the places suggested. Any ordinary soil will suit it.

S. ARNOTT.

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seems unnecessary. Are we not obliged to study them? I should much prefer not to have the chance of doing so, but when they come "not as single spies, but in battalions," they simply compel attention. It appears that, besides American blight, there are really three distinct species which infest the Apple—aphis pomi, aphis sorbi, and aphis Fitchii. The last is supposed to be a migrant, feeding on the Apple in spring, leaving it at the beginning of summer, for, it is believed, Corn and grasses,

MR. MARTIN.

and returning in autumn. Against it, spraying in spring is said to be effectual. The worst of the three is aphis pomi. It causes the leaves to curl badly, and, like all insects that do this, cannot be reached by spraying. Of course, some of the insects may be destroyed by this means, but they are few in number compared with those that survive. For the same reason spraying is useless against the Plum aphis and the Currant aphis, if it is delayed until the leaves have been curled.

**Tomato and Pea Trials.**

March 15th.—Of the seventy-one varieties of Tomatoes tested last year at the Royal Horticultural Society's gardens at Wisley, six had, at various times, received a first-class certificate, and twelve an award of merit. The six were Chiswick Peach, Conference, Frogmore Selected, Golden Nugget, Ham Green Favourite, and Sunrise; and the twelve which followed close behind were Cherry Yellow, Dobbie's Cherry Ripe, Fillbasket, Hillside Comet, Holmes' Supreme, New Dwarf Red, Nield's Seedling, Norfolk Hero, Princess of Wales, Satisfaction, Stirling Castle, and Winter Beauty. All of these confirmed the favourable opinion which had previously been formed of them, though Chiswick Peach, described as "a delicious dessert variety," was found to be "not suited for outside culture." The most prolific of all was Sunrise. It is described in the report in these terms: "Medium size, dark red, round, smooth, handsome; averaging eleven fruits in a cluster, very even in size; short-jointed; moderate foliage. Extraordinarily heavy crop." A new variety, Futurity, of which the type is not yet fixed, had a truss containing the astonishing number of fifty fruits. If it comes anywhere near this standard regularly, this will be a wonderful Tomato. Of Peas, a hundred and forty-nine varieties were tested, and of these nineteen had received first-class certificates, and thirty-one the award of merit—rather a high proportion of honours. The first group consisted of Alderman, Ameer, Autocrat, Chelsea Gem, Edwin Beckett, Exonian, Fillbasket, Gradus, Ideal, Magnificent, Peerless Marrowfat, Prizewinner, Selected Gladstone, Stratagem, Telephone, The Daisy, Veitch's Maincrop, Walker's Perpetual Bearer, and William I. With three exceptions, all acquitted themselves well. The three were Exonian, which only yielded a light crop; Pride of the Market, which was badly attacked by wireworm; and William I., which has been superseded by newer and better varieties. The honours were carried off by Autocrat. It is described as "one of the finest late Peas in cultivation, with a splendid, robust, prolific habit." The best early proved to be Little Marvel, which received an "A.M." in 1902. Curiously enough, that fine Pea, Ne Plus Ultra, is not entitled to any letters after its name. Yet, in spite of its age, it was well in front of many of its rivals, and is described as a splendid stock of this grand old variety, which still leads the list for flavour.

**Plants Under Trees.**

March 16th.—A walk through the woods will soon dispel the idea that plants will not thrive under trees. Under Pines which are crowded thickly together they will not, it is true, though the reason is probably not so much the dearth of sunlight as the dense bed of Pine needles which covers the ground, smothering up any low-growing plants, and injuring them by means of its resinous exudations. But where the Pines are not so thick, or where the trees are deciduous, there are multitudes of plants which luxuriate in the rich soil at their base. Nor do they all die down in summer, when the shade deepens, for after the Anemones and Bluebells come the Ferns to replace them, and this scheme of Nature's planning may be carried out in many different ways in the garden.

H. C. DAVIDSON.

# Famous Gardeners at Home.

*No. 231.*—MR. JOHN MARTIN, AT THE GARDENS, BUCHAN HILL, CRAWLEY.

AMONG the numerous charming country seats in the neighbourhood of Crawley, Buchan Hill, the residence of Mr. Philip Saillard, is entitled to a first place. Its situation is picturesque, the mansion is surrounded by a large and well-timbered estate, and the approach from the main road is delightful. Bearing in mind the fact that the gardens were only made, under Mr. Saillard's directions, in 1882, they are exceedingly attractive, and the admirable manner in which they are kept reflects great credit both on Mr. John Martin, who has been head gardener at Buchan Hill for eighteen years, and on his staff of willing assistants. The glasshouses are quite a feature, and these, on the occasion of my visit in January, we turned our attention to at the outset, starting in the early Peach house. Here are grown Early York, Hale's Early, and Grosse Mignonne Peaches, with Lord Napier and Rivers' Early Nectarines, just then beginning to burst. With a glance at the Palm house, which is in the middle of the four Vineries, and contains Palms and Ferns, we entered the mid-season house.

"In this Vinery," said Mr. Martin, "we grow Black Hamburgh, Madresfield Court, and Black Muscat. The last has been here since the house was built twenty years ago. It is a nice-flavoured Grape, and we get good crops and large bunches."

**Chrysanthemums in Borders.**

"I see that you grow Chrysanthemums in the borders."

"Yes, the early-flowering varieties. Most of the cuttings are in. We dib them in a frame, and plant them out in the open in May."

"They are not potted?"

"We lift them with a good ball, and place them inside on the Vine borders, and cover with plenty of soil, but not to interfere with the Vine or Peach roots."

"Have you had this system in operation for any considerable period?"

"We have practised it for the last ten years,

A "WELL-STOCKED HOUSE" AT BUCHAN HILL, CRAWLEY.

both in the Vine and the Peach borders, and it has answered remarkably well. We get a lot of nice, long sprays for cutting."

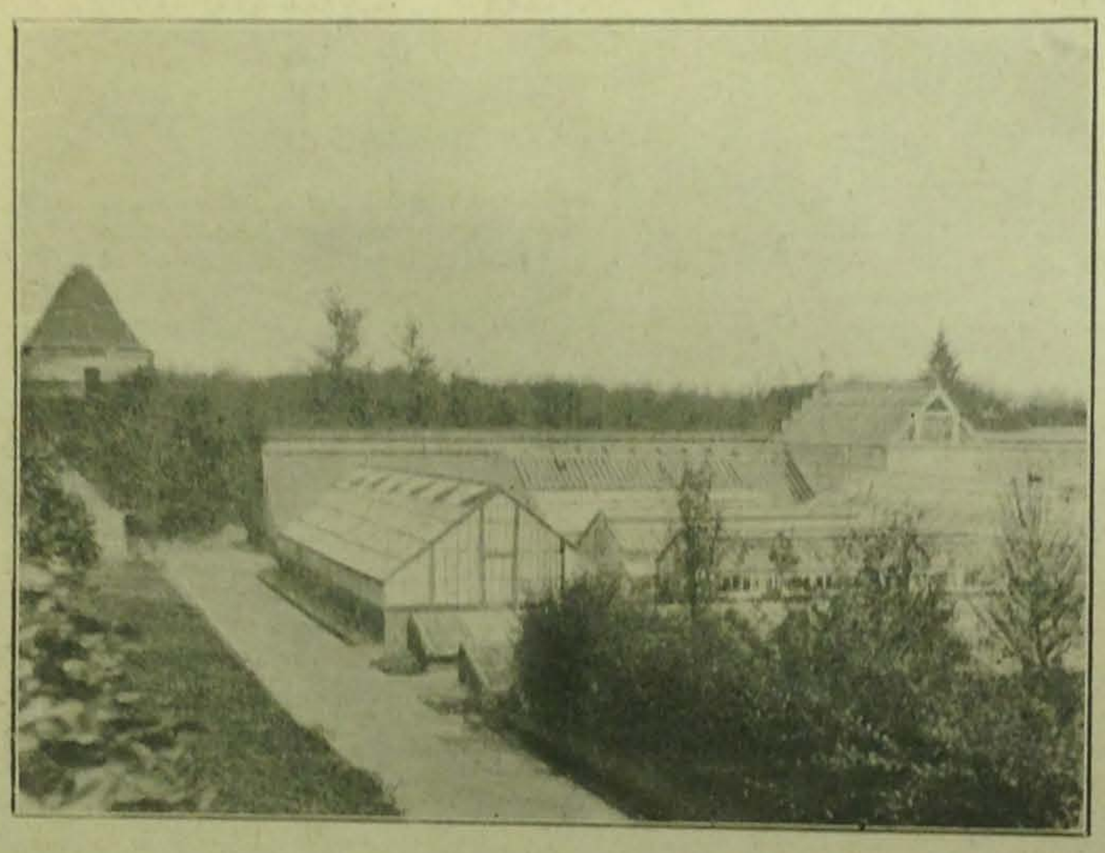
"How many do you grow in these borders?"

"About eight hundred. They are chosen for the colour, and the varieties are Miss Mary Anderson (single pink), Source d'Or (bronze), Source d'Or (yellow), Madame Desgrange (white), Edward Beckett (yellow, a very good variety, but not the old one of that name), and Elbie's Crimson Queen."

**The Orchard House.**

In the late Peach house, Princess of Wales, Dymond, Stirling Castle, and Sea Eagle are grown. Here we did not spend much time, but proceeded to the orchard house, which is an experiment this year.

"At least," said Mr. Martin, "this will be our first season of fruiting. Peaches, Plums, and Pears are all grown in pots. The trees came as maidens, and we are naturally very interested to see whether they succeed. The Pears include Clapp's Favourite, Williams's Bon Chrétien, Beurré Hardy, Doyenné du Comice, Beurré Superfin, Comtesse de Paris, Marie Louise, Marie Louise d'Uccle, Marie Louise d'Elcourt, Charles Ernest, Duchesse, and Louise Bonne of Jersey."



The Glasshouses at Buchan Hill.

"The Peaches, like the Pears, look promising. I suppose you have some special varieties?"

"Yes, Admirable Jeanne, Præcox de Halle, and Præcox Alexander are not varieties known much here. The trees also include Grosse Mignonne, Stanwick Brugnon, Salopian Brugnon, Belle de Vitrey, Lord Palmerston, and Amsden June. As to Plums, the varieties are Reine Claude Dorée, Coe's Golden Drop, Washington, and Reine Claude d'Eculby."

**Malmaisons and Winter-Flowering Geraniums.**

"I notice that on the shelves you have Malmaisons."

"Those are only the plants we have turned out of the Malmaison house to make room for winter-flowering Geraniums. The chief varieties grown are Princess of Wales, Sir E. Fremantle, Calypso, Albion, Sir E. Wood, the old pink and blush varieties, Horace Hutchinson, Cecilia, and Lady Grimstone. They look very healthy and free from rust. We do not go in so much for a number of varieties as for flowers of good colour. Begonias, which you see in this house, were at their best a fortnight before Christmas. We do about five hundred Gloire de Lorraine and Turnford Hall. Our system with them is to get cuttings as soon as we can—not to let the plants get pot-bound. In winter we give them scarcely any heat."

"How many winter-flowering Geraniums are there in the Malmaison house?"

"About six hundred. The two principal varieties are Olive Carre (pink) and Raspail. Olive Carre goes well with artificial light. These Geraniums begin to flower early in November, and go on until March, if we want them as late."

**Freesias and Cyclamen.**

"You seem to have a large number of Freesias."

"Some four hundred—all of them refracta alba. There is nothing to beat it. The plants are grown entirely from our own bulbs. We can do better with them than with imported bulbs. Of course, they are well looked after when they have done blooming, and at the start we take great care to select the best bulbs. Another point is that we keep them in a cool frame as long as we can."

"Your Cyclamen appear to be coming on remarkably well."

"They are Sutton's strain, from which I have selected the best, and seeded them. I do not think that the strain can be excelled. We grow a quantity of Cyclamen in little pots, which are very useful for dropping into vases. They will last a fortnight, but they do better if changed more frequently. About three hundred are grown."

"What are the principal plants in your stove?"

"Dracænas, Crotons, Pandanus, and Palms. We get a lot of flower from the Stephanotis which grows on the roof of the house. We train it on three ropes, each side; a quantity is used for spray work and for buttonholes. In the greenhouse we have a nice batch of Cypripediums, which we find very useful. As you see, we also have a number of Libonia floribunda."

**The Treatment of Libonias.**

"Yes, I should like to know your treatment of Libonias."

"We plant them either outside or in cool frames, potting them up in the autumn, and then they receive ordinary greenhouse treatment—that is to say, enough fire to keep the frost out. Any number of plants can be struck from cuttings. We grow about fifty, and they begin to flower in the middle of December, continuing until the end of March. We reckoned that they are at their best in February. The drooping, tubular, bright red flowers, tipped yellow, are rather ornamental."

"Do you go in for Callas extensively?"

"Yes, and we treat them much in the same way as Libonias. We also go in largely for Primula obconica, Schizanthus (Sutton's hybrid), and winter-flowering Heliotropes—of the last about a hundred and fifty."

**Sweet Peas in March.**

"Another feature," continued Mr. Martin, "is Sweet Peas, grown for early flowering. They are put in their 12-in. pots about the end of August, and, as you can judge, they look flourishing. They are some I saved myself, and are all pink in colour."

"When do you expect to get some flowers?"

"In March. Of course, it is very early to get them, but I thought it was worth the effort."

"You appear to have a very large number of Cineraria stellata."

"About five hundred. A large number are grown, as you perceive, under the stage. They flower in the borders all round the house. I strongly believe in turning the borders in houses to account, and these Cinerarias keep fairly clean, and bloom as late as June. I grow Genistas from seed. The plants here are between two and three years old, and are very useful for furnishing."

"On the top of this house, I notice you have Tea Roses."

"Yes, and we take care not to have too many in flower; we like to get the buds. This batch will be succeeded by another lot in pots, and after that we get Roses out of doors. The varieties are W. H. Richardson, Devoniensis, Niphetos, Bouquet d'Or, Maréchal Niel, and L'Ideal."

"Your Tree Carnations are just coming into flower."

"Yes, this is the usual time. We make a point of planting the bed right out; it saves a lot of time. There are only pots round the border of the bed and on the side. The varieties grown are Mrs. Lawson, Fair Maid, Melba, Daydream, Cambridge White, Mrs. Brooks, and Lady Carlisle. We grow more of the pink than of the white, but altogether there are nearly eight hundred plants. They will flower on until September, if wanted."

**The Cultivation of Amaryllis.**

"Do you grow many other Orchids?" I asked, as we entered a house containing Dendrobiums.

"In addition to these, for which we keep up just a little heat, we have, in the propagating house, Cattleyas, Cœlogynes, etc. This is the Tomato house, and here we grow a batch of Poinsettias. The next house is devoted to Amaryllis, of which we have about three hundred flowering bulbs."

"What is your system?"

"We flower them in these pots. They are planted out in a heated frame as soon as they have done flowering, and kept well growing until they show signs of going off. They are exposed in order to ripen them. I like to get them in flower at Easter. Most of these are seedlings which have not yet flowered."

**Late Apples.**

Passing the late Vinery, from which Mr. Martin had only just cut the last Grapes, and in which are grown Black Alicante, Lady Downe, Alnwick Seedling, Gros Maroc, Gros Colmar, and Muscat of Alexandria, forty-six rods in all, with an inside border, we made our way to the fruit room. Here, notwithstanding the time of the year, I saw a splendid quantity of Apples and Pears, grown out of doors, chiefly, and, of course, late varieties.

"One of the best of these," said Mr. Martin, alluding to Apples, "is Hanwell Souring; and others are Chainwood Dumpling, Annie Elizabeth, Waltham Abbey Seedling, and Tower of Glamis. Considering the bad season last year, we had a very fair crop of Apples."

**Forcing Seakale.**

Next we went into the Mushroom house, where the Seakale is forced. The Mushrooms are on the top shelves, and below are Chicory, Rhubarb, and Endive.

"But the principal thing here," I said, "is the Seakale."

"Yes, that is a very great feature with us. We grow in the kitchen garden four thousand crowns. They are all from thongs planted early in March on well-prepared ground. The crowns are thinned when large enough to select the strongest. We keep the weeds down during summer, and lift the crowns when the leaves begin to turn yellow, forcing them in batches in this house, which we find much better than forcing them in the open. Seakale is more to be depended upon than Broccoli."

**The Flower Garden.**

In the prettily-arranged flower garden, near the mansion, there are a number of beds planted with Roses, others being used for annuals. Beneath the west wall, on which dessert Pears are grown, there is a border ninety yards long and four wide, in which either Roses or Dahlias will be planted; and opposite are standard Roses, the varieties being much the same as those in the houses. Naturally, in January, there was nothing much to be seen, and after a stroll round we returned to the frames, of which there are four rows, all heated for growing plants, to furnish the conservatory and supply cut flowers.

"What is the strain of Cineraria just coming into flower?" I inquired.

"Sutton's Superb, of which we grow in 'sixteen' pots about seventy. We give them the same treatment as Calceolarias, only using different soil. For Calceolarias we use loam and leaf-mould with peat. In the case of Cinerarias we dispense with the peat."

"What number of Calceolarias do you grow?"

"About two hundred and fifty, and we find them very useful. They are grown very cool, with only just enough heat to keep out the frost, flowering in two batches; the seed was sown in the early part of June, and the second at the end of July. We grow about a hundred and sixty Schizanthus for spring flowering, which have just been potted into their flowering pots, also about a hundred Neriums (Fothergillii major), and Humea elegans are also grown; and winter-flowering Stocks in 'thirty-two' pots."

**A Fruit Arch.**

"Any Mignonette?"

"Yes, two lights. The seed was sown, in September, broadcast in the frame, a plan which gives us a quantity of cut flowers. Violets occupy eleven lights, and are now supplying us with plenty of flowers. They are all struck from cuttings in the spring, planted out, and, when rooted, we keep all the runners pinched off. The plants are lifted and put into frames about the middle of September. The varieties grown are La France and Princess of Wales (single), and Marie Louise (double). In addition to the kitchen garden there is an orchard, where, also, vegetables are grown. One of the features in the kitchen garden is a fruit arch of cordons, a hundred yards long, seventeen feet high, and fifteen feet wide. The trees are planted in panels of four each, consisting of Apples, Pears, and Plums, which yield a quantity of fine fruit."

**Root Pruning.**

"How long have they been here?"

"Twenty years, and have all met at the top. We have to constantly root-prune to keep them in order; one side was done twelve months ago, and I hope to do the other next autumn. Indeed, we find root pruning very necessary for all kinds of fruit on this soil, in order to maintain the trees in a fruitful condition."

"When do you commence?"

"Always as soon as the fruit is gathered, starting with a certain number of the trees which are making the strongest growth. First of all, a trench is made, three or four feet from the stem of the tree, and all the roots are cut. The trench is deep enough to enable us to feel sure that we get all the roots up. We then work the soil very carefully out from the roots with a garden fork, until about two or two and a half feet free from the stem. That part of the soil is left intact, and the strong roots are shortened back with a sharp knife, the deep roots being raised by ramming soil well under them. We next lay the roots evenly, and cut any that are damaged by the fork, placing some freshly-prepared soil about them. If the soil is at all dry, we give the whole of the roots a thorough watering, and cover with a good layer of fresh leaves to keep them moist. We allow that to settle for a few days, and then we cover in with soil and lime rubble. I believe that if root pruning were more generally practised we should hear a great deal less about canker."

**The Best Apples and Pears.**

"Which varieties of Apples do you find flourish most?"

"Adams's Pearmain, Cox's Orange Pippin, Worcester Pearmain, Alexander, Claygate Pearmain, Alfriston, Cox's Pomona, Lord Derby, Loddington, and Peasgood's Nonsuch. The Pears which do best are Beurré d'Amanlis, Souvenir du Congres, Beurré Hardy, Beurré Superfin, Marie Louise, Pitmaston Duchess, Bright's Monarch, and Marie Benoist. In addition to some of the varieties of Plums grown in the orchard house, we have here Kirke's, Jefferson, Victoria, Monarch, Pond's Seedling, Orleans, and Cox's Emperor."

"How about Strawberries?"

"We always plant the old roots, which have been forced, on well-trenched ground, and there let them remain two years, as we find that the third year they are useless. The varieties which are most successful are Royal Sovereign, Laxton, Trafalgar, and La Grosse Sucrée."

"Would you like to say anything about vegetables?"

"Only that Celery is in great demand. We grow six large double rows, each fifty yards long, the varieties which suit the soil best being Sutton's A1, Major Clarke, and Sharp's Giant White."

"Where did you commence your gardening experiences, Mr. Martin?"

"I was apprenticed at a nursery in North Devonshire, and from there I went to the new plant department at Messrs. Veitch's nurseries in Chelsea. At the end of two years I proceeded to the Dell at Egham, and was under Mr. Ballantine for three years. Then, after another year at Chelsea, I came here in 1887."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 189.—BORDER CHRYSANTHEMUMS.

DEAR KATE,—In the last week of 1905 I wrote to you of the late single Chrysanthemums, which were then so pretty; now I am going to tell you of some early single varieties for the garden, because they are so useful for cutting in October, when there are not too many of the Daisy-like flowers, which are so far more elegant than the great, double flowers of show Chrysanthemums.

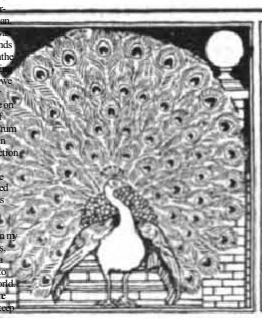
A PRETTY SINGLE CHRYSANTHEMUM—MISS MARY ANDERSON.

**A Good Selection.**

You can still put in cuttings of the outdoor kinds, though the first week in the month is a better time; and, if you have not already done so, I should advise you to obtain rooted plants now, and pot them up at once, so that, when you put them out into the borders a month later, they will have no check, and grow "right away," as the Americans say. Ladysmith is the name of one of the best, in pink; it is only about eighteen inches high, and produces quantities of large Daisies, extremely like a single pink Pyrethrum, so that it is very decorative in October, either indoors or out. Mary Richardson is in a marvellous shade of coral-pink, a most beautiful and conspicuous flower in October; Covent Garden White is semi-double, a lovely thing, with three rows of petals and a golden eye; Early Blush is charming, in palest pink; and Elegans, in chestnut and gold, with Mrs. C. Curtis, a robust plant, with deep crimson Daisies, make up an excellent set for October, as they all blossom in that month.

,VEMBER 26, 1910.
GARDEN LIFE.





# THE GARDENS AT WITHDEAN COURT, NEAR BRIGHTON.

## Interview with Mr. W. Maskell.

BY the courtesy of Mr. E. Curwen, I had the opportunity in August of visiting his beautiful gardens at Withdean Court. The house dates back to the time when Withdean was a village far removed from the popular watering place, and though it now almost joins on to Brighton, its surroundings are still more rural than suburban. The Court itself is a fine mansion, which was remodelled by the owner in 1884, and stands in a commanding position, well back from the

"With Wallflowers Blood-red, and an edging of Myosotis Royal Blue. As you will see, we go in largely for Geraniums of one kind or another. Behind the low Euonymus hedge on either side of the grass, there is a border of Ivy-leaved Geraniums, edged with Pyrethrum Golden Feather. Mrs. Parker, too, figures in several small beds on the lawn, in conjunction with Lobelias.

"On the lawn," continued Mr. Maskell, "are some of the Conifers which have been raised from seed. Here is one of the three Permolas

WITHDEAN COURT—SOUTH FRONT.

from India. The seed came from India, and was sown nine years ago. The Permolas are perfectly hardy, but lose their leaves in the winter, though they come again in May."

"What treatment do they require?"

"Only the ordinary care given to hardy shrubs. In what we call the Permola bed is Cornus underneath, with Asters mixed, and an edging of Lobelias."

"When were the pair of Cupressus macrocarpa, in the centre of the two beds of scarlet Geraniums, planted?"

"Three years ago, and they have come on well. The Geranium in one bed is Henry Jacoby, and, in the other, West Brighton Gem, the edging in both cases being Lobelia speciosa."

Then, noticing by the way two small Judas trees, and a nice specimen of Weeping Willow, I turned my attention to a large Rose bed, with pretty variegated Hollies.

"Are the Roses mixed?"

"Yes, and they belong chiefly to the Tea section, because the soil suits Teas. I peg them down in order to get a great mass of colour, using Crimson Rambler for the centre. Near the Rose bed is a very old Araucaria, with Calceolaria Golden Gem and pink Lobelias underneath."

"They make an excellent combination. So do the Roses, Geraniums, Sweet Williams, and blue Lobelias under the two specimens of the American Arbor Vitæ."

"In spring we plant that bed and others with Forget-me-nots, Polyanthus, Tulips, and Hyacinths according to colour."

### How to Treat Petunias.

"Can you tell me the age of the thriving Thuja Lobbi?"

"It came here in 1885. We manure it well and dig round, cutting the close roots away. I think the reason why the Petunias at the base of this tree do so well is that the soil is dry. They have been flowering for two months. All I do to them is to plant them out, and water freely. Then they last late into the autumn."

"What is the nature of the soil?"

"It is very chalky and light, and needs well manuring. The bed near the Petunias is a combination of Nicotiana affinis and mixed Ivy-leaved Geraniums, edged by white Lobelias, with an Irish Yew, planted twenty years ago. Under another Irish Yew are flowering Deutzias, and Lilacs in variety, white and two kinds of pink. The white yields most blooms. At the base of another Thuja are Geraniums mixed with Pyrethrum Golden Feather."

### The Shrubbery and Tennis Lawn.

Proceeding along the drive from the lodge to the Court, we entered a charming shrubbery, of which a feature is a Yew, summer-houses with alcoves, and a magnificent Golden Yew hedge, splendidly clipped.

"How often do you clip it?" I enquired.

"Once a year only, in September. On the tennis-lawn you see we have several Yews in shapes, one like a wheat-stack, another like a bell. There are two Irish Yews, a Thuja, and red and pink Mays in the surrounding hedges."

"Your tennis-lawn is altogether delightfully enclosed," I said, as we ascended another part of the shrubbery, which leads up to the railway at the top.

"We try to keep it in good order, but no attempt is made at elaborate decoration. In this part of the shrubbery Lilacs are the chief feature, with a number of Syringas."

"And a Nut avenue?"

"But there are no Filberts to pick this year. The avenue leading from here into the new kitchen garden contains Laburnums."

"Have you another kitchen garden?"

"Yes, an old one on the other side of the road, where we grow some of our best crops."

### The Value of Zinnias.

"How is the top flower border in the kitchen garden made up?"

"With bedding Begonias, Zinnias, Stocks (Beauty of Nice), and Coreopsis. I think that it is a pity Zinnias are not more generally grown. They have a very long season, lasting from the end of May until the frost comes."

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"Is there anything special in the cultivation?"

"Before the plants are put out we get them well along. They need plenty of manure. Rich ground is, in fact, a necessity. In the lower borders Salpiglossis mixed with Scabiosa is conspicuous. These do better when the season is warm."

"What is the name of the Viola which gives such glorious sheets of gold as edging?"

"Sutton's Giant Yellow. I think that the folia, Spiræa Aitchisonii, Andromeda japonica, Ligustrum sinense, Pterocarya japonica, Alnus Oregona, Pterocarya caucasica, Decaisnea Fargessi. We have also sown seeds of shrubs whose names we do not know. One of these is a shrub with yellow flowers, whose habitat is near Li-kiang. Then, we have seeds of a large tree found at Li-kiang, seven thousand feet above the sea level, which ought to succeed in Europe. Seeds of a tree growing at the foot of Withdean Court—Entrance.

"All, whether Decorative, Japanese, Incurved, or Pompone. These were planted out in June, and will be lifted into pots in the middle of September. If there is plenty of space to spare, and exhibition blooms are not wanted, the flowers are just as good outside. I plant seventy-five in a row, and stick them as soon as they have been pinched. The collection includes a good many varieties, mostly the old favourites."

### Good Apple Crops.

"Some of your Apples on cordons are yielding fine crops."

"They vary a good deal. Lady Sudeley, Northern Greening, Vicar of Dighton, Blenheim Orange, Bismarck, Ribston Pippin, Beauty of Bath, have fair crops—Lady Sudeley splendid. There is some fine fruit on The Queen, Lady Henniker, Margil, White Transparent, Keswick Codlin, Stirling Castle, Lane's Prince Albert, Lord Grosvenor (which always does well in Sussex), Colonel Vaughan (a good dessert Apple), and King of the Pippins (a fine colour). I find that thinning out about the middle or end of June has a very good result."

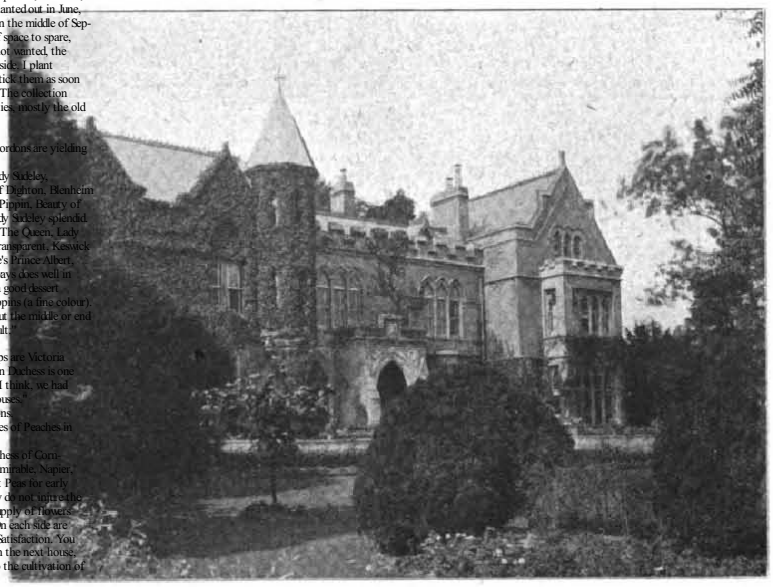
"Are Plums scarce?"

"Very. The only decent crops are Victoria and Golden Drop. Pitmaston Duchess is one of our best Pears. But now, I think, we had better look into the fruit houses."

### A House of Kaki-Persimmons.

"Do you have many varieties of Peaches in your early house?"

"Only Early Alfred and Duchess of Cornwall. The Nectarines are Admirable, Napier, and Pineapple. I grow Sweet Peas for early use in the border here; they do not injure the Peaches, and I get a good supply of flowers before the others are out. On each side are Tomatoes, Sutton's A1 and Satisfaction. You will, I think, be interested in the next house, which is entirely devoted to the cultivation of Persimmons."



WITHDEAN COURT—ENTRANCE.

THE OLD KITCHEN GARDEN AT WITHDEAN COURT.

November 26, 1910. GARDEN LIFE. 185

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"Only Early Alfred and Duchess of Cornwall. The Nectarines are Admirable, Napier, and Pineapple. I grow Sweet Peas for early use in the border here ; they do not injure the Peaches, and I get a good supply of flowers before the others are out. On each side are Tomatoes, Sutton's Ai and Satisfaction. You will, I think, be interested in the next house, which is entirely devoted to the cultivation of Persimmons."

Box in front helps to show it up. Asters are also used in the borders, principally Single Blues, Sutton's Dwarf Pink, and Ostrich Plume, also Gaillardias."

'Near the dogs and cats' cemetery, I observe you have a plantation of Dahlias."

" Most of the sections, except the Paony-flowered, are represented. One of the best of the Cactus varieties is Lord Roberts and of the Pompone Darkness. Close to a bed of Gladiolus Brenchleyensis is a bed of Polyanthus Sutton's Superb. We pinch the flowers now in order to strengthen the plants. They are put out in their permanent quarters in the front in November, and they flower in March. They were all grown from a packet of seed. Polyanthus is easy and cheap to grow, and I â€strongly recommend amateurs to go in for it. The Montbretias are the old variety, with foliage as decorative as the flowers."

Spring-sown Sweet Peas.

"When do you sow your Sweet Peas?"

" We make two or three sowings so as to get masses of bloom for a long season. They are planted in clumps, and the first batch is put out at the end of April. The varieties sown in spring include Evelyn Hemus, Black Knight, King Edward VII., Mrs. Hardcastle Sykes, Lesser Columbus, Sutton's Queen, Helen Pierce, Norah Unwin, St. George, and Countess Spencer. Now we come to some of the Conifers raised from seed three years ago."

Conifers Raised from Seed.

"I should like to know the names of some of them."

"Here is a Sophora japonica, and near it is Cotoneaster microphylla. Others, planted at the same time, include Cupressus sempervirens, Caragana arborescens, Citrus triptera, Quercus Tauzin. This year's sowing are chiefly Cryptomeria araucarioides, Phillyrea angusti-

the glacier of Li-kiang have also been sent to Mr. Curwen, and, in addition to these, we are trying what we can do with seeds of a shrub from a Lamaseras near Li-kiang, where they were planted on espaliers."

"It will be very interesting to see how they turn out. Do you plant all your Chrysanthemums in the open ground?"

"How long have you been growing them?"

"Ten years. There are several trees, and the fruit bears a resemblance to both a Melon and a Peach, is amber in colour, and ripens after the leaves have fallen off in October and November. We tried them outside, but they would not do."

"Do they crop well inside?"

"We have had as many as sixty-five fruits in



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one year. Mr. Curwen had twenty roots sent him, which he divided into five, only one fourth being planted in this house. Persimmons are indigenous in France, but as you can see from thele, with good soil, plenty of water, loam, leafmould, and sand, they will thrive in England. No manure is needed."

"You have no conservatory, I think?"

Araucarias for the Table.

"No; we use the greenhouse, which we are just entering, instead. That is to say, it is always decorated. We find that young Araucarias are very useful table plants. They are at their best when between two and three years old, and are quite easy to grow. A little peat should be put in the pot, and they should be given plenty of water. Single and double Begonias, with several varieties of Coleus, are the other principal features of the greenhouse."

"Do you go in largely for Grapes?"

"We have two Vineries. One house is devoted to Black Hamburgh, and in the other, planted in pots, are several of the South African Vines, including the Black Cape, the White Cape, and Muscatel of Jesus, a very good white Grape. These Vines bear plenty of good fruit; Comice do very well on the walls, and there is a very fine crop of Clapp's Favourite. The crops of bush fruits have been very good this year, and Strawberries were very satisfactory, but the only variety grown is Royal Sovereign. Morello Cherries flourish on the north wall."

"You also have fruit under glass?"

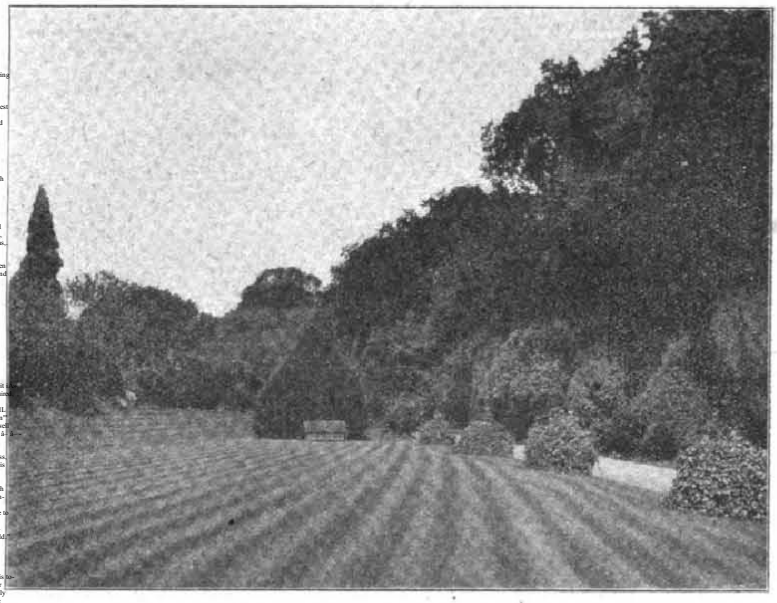
"There are two Vineries, which were planted in 1889. In one, only Cape Grapes are grown; they require a great deal of heat, and a fire has to be kept up nearly all through the summer. In the other house, the varieties are Muscat of Alexandria, Muscat Hamburgh, and Gros Colmar. Outside the Vineries we get good crops of Brown Turkey Figs."

"You have some Chrysanthemums in pots outside."

"Only a few, mostly of the Japanese section. The varieties are Merstham Yellow, Splendour, Beatrice May, Soleil d'Octobre, May Mason, Mrs. J. Hunter, Lady Hopetoun, Thirkal, W. H. Hetherington, and Mrs. W. Mileham."

"Judging by their appearance, I should think the soil suits every kind of vegetable."

"So long as we dig deeply and use plenty of leaf-mould, there is not much difficulty with any of them. Peas are started in a south border



WITHDEAN COURT—THE TENNIS LAWN.

first week in January, and cut in June. Three Carnations are grown in this house, the varieties being chiefly H. Gibbons, Winter Cheer, Mrs. H. Burnett, Audrey Campbell, Florence, and Britannia."

We then crossed the main road, making a slight ascent on the other side, and reached the original kitchen garden, which is practically in charge of another gardener, who assisted Mr. Maskell in giving me particulars.

A Kitchen Garden 200 Years Old.

"This must be a great age?" I said.

"It is nearly two hundred years old, with heavy soil, which will grow fruit and vegetables we could not possibly grow on the other side. There are some ancient trees in it. Here is one, for instance, Lady Sudeley, half a century old, which still bears well. Overhead there is a Quince, which bears fruit every year. Medlars do very well in this garden. As to other Apples, Worcester Pearmain, Golden Noble, Lord Grosvenor, Annie Elizabeth, and Charles Ross, are among the varieties that do extremely well."

"How about Pears?"

"Louise Bonne of Jersey and Doyenne du Comice do very well on the walls, and there is a very fine crop of Clapp's Favourite. The crops of bush fruits have been very good this year, and Strawberries were very satisfactory, but the only variety grown is Royal Sovereign. Morello Cherries flourish on the north wall."

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"Judging by their appearance, I should think the soil suits every kind of vegetable."

"So long as we dig deeply and use plenty of leaf-mould, there is not much difficulty with any of them. Peas are started in a south border the first week in June, and we go on till the first week in November. We begin with Improved William I., and go on to Ideal, Gradus, Autocrat, Sutton's Giant, Main-crop, and Magnum Bonum. Four very good varieties of Runner Beans are French Canadian Wonder, Sutton's Perfection, Ai Runner, and Climbing French Bean. A great quantity of Lettuce is grown, the varieties being Mammoth, White Cos, Commodore Nut, All-the-Year-Round, and Sutton's Favourite. We plant Lettuces in a border in the green-house in March, and cut in six weeks. Our best early Potato is Sutton's May Queen and Forcing. All the Onions are spring sown, and the varieties are Ailsa Craig, Bedfordshire Champion, and James's Long Keeping."

"You have a big crop of Globe Artichokes."

"Yes, very good indeed. They are very rank feeders, and require plenty of manure, and water in very dry weather. The smallest and most popular Marrow is Table Dainty, though we grow also Long White and Long Green. Table Dainty does not need to be cut up, as each one is only sufficient for one person."

"What about your own showing and career, Mr. Maskell?"

"I have shown at Brighton a good deal, and won several first prizes, for Apples and Pears, Plums and Nectarines, and in flowers Deutzias, Scabiosa, and Azaleas. As to my career, all my experience has been gained in Sussex. I was five years at Queen's Park, Brighton; then I was second gardener at Wick Hall, Hove, and twenty-two years ago I came here as head."

ALFRED WILCOX.

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THE gardens of Sir Edward Stern, at Fan Court, Chertsey, will be described in next week's interview.

## Hints on Making a Lawn.

IT is well known that turf may be laid at any time during the autumn, winter, and spring—in favourable weather, of course—and this being the case, a few notes on the subject may be useful.

Turf is cut in pieces measuring three feet by one foot (or this should be the size), so that it is easy to reckon how many pieces will be required to cover a certain area. Grass containing few or no weeds should be obtained, or there will be trouble afterwards in keeping a nice "clean" lawn. Before laying, the ground should be well worked over and levelled, and then raked to a fairly fine and even surface. If the soil is at all poor, a little decayed manure should be worked in; and if it is damp, or liable to moss, put down two inches of coal ashes first—this may seem strange, but it is a capital thing.

In laying the grass down, unroll the turves carefully, placing the joints alternately in each row. Pack them as closely as possible to each other, also endways, yet without any undue crowding; and when all are down, commence to roll and beat.

If the weather is dry subsequently, the grass will have to be watered well until it "gets hold." Cut the grass very lightly for the first few times, and more closely afterwards.

### Sowing Seed.

If good turf, free from weeds, cannot be procured in the neighbourhood, the alternative is to sow a suitable mixture of fine grass seed. For this purpose the ground must also be carefully worked and levelled, and then the surface be raked down to a very fine tilth. But it is advisable that this be done some time before sowing the seed, for there are sure to be a lot of weed-seeds in the surface soil, which will germinate and grow with the grass if this is sown at once. It is a good plan to wait for the first crop of weeds, and chop them up, then for another one, and possibly a third, to make sure of a clean seed-bed. Sow the seed evenly and rather thickly, at the rate of about four bushels to the acre, or a little over a quart to each rod or perch of thirty square yards.

When sown, rake it in very carefully, or cover with a sifting of fine, sandy soil, and if necessary protect from birds with netting or black cotton. The seed should consist of a mixture of the finest grasses (which can be obtained of any good seedsman or nurseryman), but it should contain no Clover, or there will never be a nice velvety lawn. A lawn raised from seed should be cut the first few times with a light, sharp scythe, not the machine.

### After-treatment.

A lawn made in either way may be cut and rolled as required, during the spring, summer and winter, but do not cut it too low. Let the cuttings lie just as they come from the machine—use no collecting box. If any weeds appear, they should be grubbed up.

When a lawn becomes weak and patchy, it should have a thin top-dressing of fine and rich but sandy compost in the spring, about the end of March, and if a good sprinkling of lime or basic slag were given the previous autumn, a great improvement will soon be noticeable. R.

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open, they will be seen to have been eaten away in the middle, and in some may be found the cause of the damage, a number of little whitish maggots with brown heads. They are the larvæ of the Pear midge, a tiny fly with a large ovipositor, by means of which it lays its eggs inside the blossoms in April and May. The eggs hatch in a few days. Obviously, nothing can be done now to save the affected fruits. But all that fall should be collected and burned. Unfortunately, that is not enough to prevent another attack next year, for many—probably the greater number—of the maggots will have already escaped into the ground. They keep close to the surface, and if the hoe is used frequently during the summer it will expose many of them to birds. Kainit at the rate of half a ton to the acre has been recommended. It has proved most effective when applied at the time when the larvæ were leaving the Pears to enter the ground. (See page 174.)

### ANTS AND ROSES.

June 18th.—Roses are often infested with ants, and methods of getting rid of the insects are given in many gardening books. Quassia and soft soap, camphorated water, and other preparations have been recommended. But are they necessary? Do the ants do any harm? If they are watched they will be seen to be hurrying up and down the shoots, never stopping to puncture a leaf, or to damage a flower. Their business is with the real pests, the aphides, which are always present when there are ants on the bushes. The former secrete a sugary liquid, which serves the latter as food. Above ground, therefore, ants seem to be undeserving of censure. Below, it may be different. Their tunnels may disturb the roots of the plants, and the formic acid which they secrete may be injurious in the soil, though this has not been proved. One reason why they like to make a nest at the base of a Rose is that they are likely to be close to their food; another, probably, is that the ground among the roots is rarely, if ever, broken up by the spade or fork. It has been asserted that at the approach of cold weather ants carry some of the aphides to their nests, and tend them during the winter. If that is true, it is the most serious charge against these clever little creatures. But are they so clever as all that?

### ARSENICAL WEED KILLERS.

June 19th.—There are so many different kinds of weed killer that it is difficult to choose between them. I generally use carbolic acid, because I find it the cheapest; but the majority contain some form of arsenic. The effect of arsenic is certainly quick, but it is not lasting—at any rate in some soils. If iron is present, the arsenic forms with it an insoluble compound, and after that happens weeds can, of course, grow without impediment where it has been poured. The fact, too, that it is deadly to poultry may make its use inadvisable in some cases. It should not be applied to paths to which fowls have access—even a long time afterwards. A case was reported some time ago of fowls having been poisoned by arsenic, which had been poured on a gravel path six months previously. H. C. DAVIDSON.

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The success which attended the experiment of Sweden in sending great rafts of lumber to England in tow, has convinced the lumber companies of Vancouver (British Columbia) that this system of transport is feasible from there. Expert raft builders have been obtained from Sweden, who have commenced the construction of a raft at Masset Mills in the Queen Charlotte Island. It is proposed to send ten million feet in raft form, via the Panama Canal, this year.

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We shall be grateful if readers will recommend GARDEN LIFE to their friends. Specimen copies will be gladly sent.

# Famous British Gardens.

## TOTTINGWORTH PARK, HEATHFIELD, SUSSEX.

*Interview with Mr. J. Masson.*

IT is thirty-nine years ago this month since the late Mr. Logie-Pirie, of Aberdeenshire, came South with his head gardener, Mr. J. Masson, and started the laying out of the grounds of Tottingworth Park. This was truly a herculean task, for the place was a wilderness of coppice, scrub, and weeds, with just a few old trees, and even the house was non-existent. The planning of the estate was done by Mr. Logie-Pirie, and the building of the house was carried on under his supervision. The bricks and drain-pipes were made on the spot, and the clay taken out for the foundations was used to form banks, and to graduate the slopes of the hill. Aided by Mr. Masson, the gardens were designed and planted, terraces built, and pools formed. How well the work was carried out I had the privilege of seeing one day in the middle of May, by permission of Mrs. Logie-Pirie.

Before starting to see the grounds, under Mr. Masson's guidance, I had a few minutes' conversation with Mrs. Logie-Pirie, who, like her late husband, takes the keenest interest in the gardens; and, besides pointing out some of the principal features, she kindly lent me some photographs for reproduction.

The principal entrance to the house faces north-west, and in front is the summit of the hill, with a wood closely planted with Larches.

"This," said Mr. Masson, was the first plantation we made. We cleared away the coppice, and planted the avenue leading to the top with Cedars at thirty feet apart. On each side are Larches, and for every tree a hole two and a half feet deep was taken out. Farther round, on the drive, we later put Oaks, Beeches, and

TOTTINGWORTH PARK, HEATHFIELD.

The house stands on high ground, and the gardens and lawns slope away in a series of terraces.

Tottingworth is on a narrow spur of the South Downs, running east from Heathfield, and about three miles from the station. It stands five to six hundred feet above sea level, with a broad panorama of open country on either side. The road along which I drove is on the crest of the hill, and for the greater part of the journey I had glorious views—to the south, of the valley sloping gently to the foot of the main range of the Downs, which rise ten miles or so off; to the north, of a more extensive valley, dotted with tiny hamlets and cultivated fields, which carry the eye to the hills bounding the distant horizon.

### A PREHISTORIC CAMP.

Inside the park the hill reaches its highest point, the house sheltering below it to the south. Not far off is the site of a prehistoric British camp, the outlines of the moat clearly to be seen, and a magnificent old Beech tree on a mound marking where the tribal gatherings are believed to have been held. Round by this mound the main drive sweeps: it is three-quarters of a mile long, with the lodge at each end on exactly the same level. Another road lower down the hill is a mile long.

other trees to stand the exposure to the weather, as we found the Conifers died after a time."

But it was when we had passed round to the terrace on the south-east side that the full beauty of the surroundings became apparent. The hill slopes away almost at once, and looking down one sees below terraces and lawns, with shrubberies to right and left, and choice trees making good growth everywhere, while a glimpse of the Water Lily pool is obtained through a gap in the trees. Then, across the valley, the rising ground on the other side is well-wooded, with farms here and there, and windmills serving as landmarks.

### SHRUBS ON THE HOUSE.

On the house itself are many beautiful wall shrubs, some only hardy in favoured situations such as this. There is, for example, Akebia quinata, whose fragrant blooms were already over, and Azara microphylla, with its neat, dark, evergreen leaves. Cotoneaster Simonsii was another nice shrub. But the glory of the house walls is Wistaria multijuga, which I was

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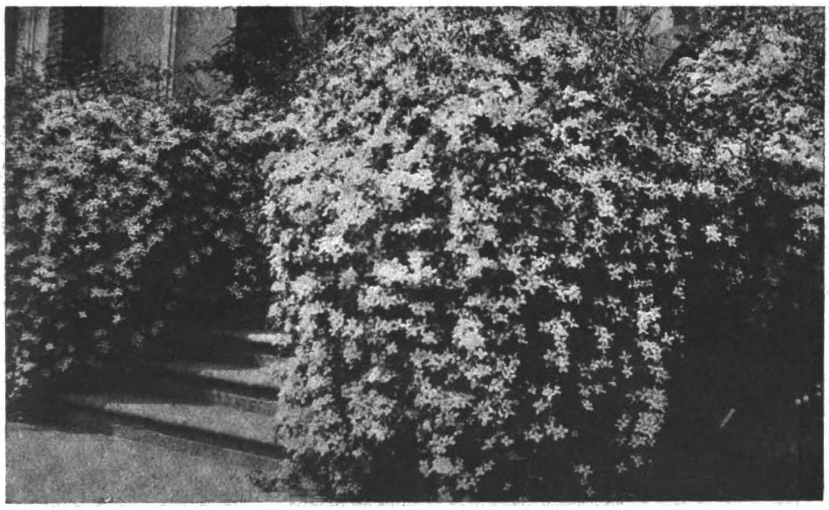
too early to see in its beauty, though the promise was there. On either side of the steps Clematis montana was a sheet of starry blossoms. The bedding on the terrace was mostly of Wallflowers and Forget-me-nots, still highly effective.

Down a few steps we came to the Sundial border, backed by the wall supporting the upper terrace. As everywhere throughout the gardens, the bricks had been made on the estate. Here several sorts of Vitis supply ornamental foliage, and along to the right are more Wistarias. In bloom in the border were stretches of white Irises and Lupins, with Oriental Poppies and Anchusa Dropmore to give colour, and an edging of Thrift. There are, of course, other plants to succeed these, and Eremurus robustus was already very forward.

Through a gate on the right, at the end of this terrace, we arrived at the Iris walk—so called because at one time it was planted solely with Irises; but as they did not succeed they were replaced by Rhododendrons, Laurels, Foxgloves, and other suitable plants, only the name perpetuating the original inhabitants. Many fine Conifers rise above, and give the shade the plants so much love. A southward and downward winding path beyond this, the banks clothed with hardy Ferns of luxuriant growth, brought us to a clearing among the shrubs, where the double-flowered Cherry



CLEMATIS MONTANA DRAPING THE SIDES OF THE STEPS AT TOTTINGWORTH PARK.

made a ravishing picture, and Berberis Darwinii was bright with blossom.

More steps now led us to a semi-circular lawn (known as the amphitheatre), where the trees and shrubs that marked its bounds were again of splendid growth and appearance. A golden-leaved Mock Orange contrasted finely with the dark green of Conifers, and Azalea pontica and Rhododendrons were masses of colour.

### SCARLET CHESTNUTS FROM SEED.

"Hibiscus syriacus is very effective in autumn," said Mr. Masson; "and so is Diplopappus and Olearia Haastii. Those scarlet Horse Chestnuts—one on the right and the other on the left—are two out of half a dozen I raised from seed. The other four are planted about the grounds."

These scarlet Chestnuts are now handsome trees, and alone would make this portion of the grounds interesting.

Still winding down the hill, we paused at another terrace, with Roses of all sorts on the wall, and a border which is to be filled with Heliotrope and Alyssum. Clematis montana, trained in clumps over posts, is a feature here.

More steps from this terrace took us down a further stage, where the wall has Wistaria sinensis alba and W. multijuga, with Clematis montana. Among the trees in this part Ginkgo biloba, the Maidenhair Tree, is particularly noticeable, with Forget-me-nots forming a carpet at its foot. A fine specimen of the Monkey Puzzle, Araucaria imbricata, should be mentioned; and a Quince, ornamental in leaf, with Forget-me-nots beneath it. Then there is a Tree of Heaven, Ailanthus glandulosa, of splendid proportions, though decidedly crowded by its neighbours. This tree, just coming into leaf, flowered last year, I was told.

Before leaving this glade to pursue the winding path between shrubs, I was constrained to look up and admire the gardens rising tier above tier, with the many trees in clumps and single specimens increasing the effect of height and distance. The path took us to the foot of a very high bank, supported, like the rest, by a retaining wall, and surmounted with tall Conifers, whose slender tops seemed "close against the sky." Here are the potting sheds, and beyond is Mr. Masson's pretty cottage; lower down the hill is the kitchen garden.

Half way down the path, to the left of the kitchen garden, we turned through a shrubbery, and came to the wood, planted when the grounds were laid out. Here there is almost every species of Pine, with many another Conifer, together with forest trees of all sorts. They are splendid trees, which in twenty or thirty years' time, when they have reached their full development, will make remarkable specimens, especially if judiciously thinned where they are now becoming crowded. To mention all their names would be wearisome, but amongst those especially noteworthy were Sequoia sempervirens (sometimes called Taxodium distichum sempervirens), Pinus insignis, P. Cembra, and P. ponderosa. Between the trees a glimpse can be caught of the lower of the pools; above, the terraces, seen through a clearing, recall hanging gardens.

### SOME NOBLE TREES.

Still winding round paths, we take a turn and come upon a large clump of the Mediterranean Heath, with variegated Elms for background, and behind these the scarlet American Oak (Quercus coccinea), pale greenish-yellow in spring, but changing later to a rich red. Not far away is a noble tree of Pinus Douglasii, sixty feet high, its foliage set off by golden Elms, which, as Mr. Masson explained, do not get very tall. High banks (made from the clay dug out for the foundation of the house) and shrubbery take the place of the former coppice, and lead down to the first of the Lily ponds, in whose waters the Pines on the bank are reflected.

A gate at the end of the path brings us once again to the lawns, this time on the lower levels. But all the beauties are visible from the house and upper terrace, vistas being made which lead the eye to objects of conspicuous interest, or especially imposing sheets of colour. The tennis lawn is near at hand, surrounded by shrubs, with a narrow inside border of Pansies. Immense clumps of Rhododendron ponticum are full of bud and bloom; the double white Lilac is a sheet of white; Prunus Pissardii, with its dark purple leaves, is thrown into relief by the green of the Smoke Plant, Rhus Cotinus; and many other choice flowering and foliage shrubs are to be seen. A Rosery, filled with old Roses of the Provence type, is also here.

Having visited the Lily pond, we commenced to ascend the slope, the path winding in and out among the trees and through shrubs. In one place the shrubs are fronted by large beds of Alstroemerias; in another, space had been cleared for Antirrhinums, which were shortly to be planted out. Pinus austriaca rose majestically above a group of smaller trees; and Cedrus Deodara formed a handsome specimen in an isolated position. Herbaceous borders flanked other walks, and at the turn of the path, and so placed as to be in view from the house, a clump of yellow Gorse, two feet in height, had behind it the white Broom, Cytisus albus, both flowering profusely, while above them the red of tall May trees was just commencing to show.

One other lawn, near the upper terrace, must be specially mentioned. This, from its shape, is called the Horseshoe, and the grouping of trees in the background, and the Rose borders in front, are very striking. Cedrus Libani glauca (Cedar of Lebanon) and C. Deodara, the Tulip-tree (Liriodendron tulipfera), Pinus macrocarpa (P. Coulteri), and other Pines tower on the outside; Acer Negundo variegata looks exceptionally bright in front of the Purple Birch, Pyrus Malus and varieties of the Crab are also in front; while on the more shady side Hybrid Perpetual Roses do well, the sunnier side being given over to Hybrid Teas. Behind the dwarf Roses are arches of Wichuraianas, such as Dorothy Perkins and Lady Gay, and the Lemon-scented Verbena (Aloysius citriodora) is grown as a shrub, receiving the protection of leaves and boughs in winter. As an edging to the border Viola Golden Queen is used.

### A TERRACED KITCHEN GARDEN.

What has been said will perhaps convey some idea of the charms of the pleasure grounds of Tollingworth, though much more could be written concerning them. But it is now time to turn to the kitchen gardens, which also, from their position on the hill, are laid out in a series of terraces. An advantage they enjoy from this circumstance is the unusual amount of wall space, which affords accommodation for fruit trees. The soil everywhere is a strong clay, and home-made pipes drain it from end to end. Until a few years ago Mr. Masson had the full responsibility for everything; but feeling that the work was too much for him his employer, always considerate of his staff, relieved him by appointing someone especially to look after the kitchen gardens and glass, so that he might devote himself to the outdoor gardens. The present foreman is Mr. Taylor, and with him to pilot us we made a tour of the houses.

In the late Peach house, which was the first we entered, the varieties are Princess of Wales and Nectarine Early Rivers. In the early house, where the fruits were beginning to colour, Royal George and Duchess of Cornwall are the Peaches, and the Nectarine is Lord Napier.

The late Vinery is filled with Lady Downe's Seedling, Alicante, Trebbiano, and Muscat of Alexandria; the early house has Black Hamburgh and Foster's Seedling. On the staging in this house were some well-grown Gloxinias in bloom. Then, at the back, a door leads into a small Fernery, mostly species of Adiantum, but with one plant which prompted Mr. Masson to say:

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"This is a plant you seldom see nowadays, though it was fairly common when I was young—Hoya carnosa, the Wax-flower. It is easy to grow, and being evergreen is always effective; then the flowers are very pretty."

The Muscat house, which came next, has only the one variety, Muscat of Alexandria.

#### INTERESTING STOVE PLANTS.

The stove provided many subjects of interest. "Here," said Mr. Masson, "is the Banana—Musa Cavendishii—in fruit. Then we have what is sometimes called the Bread-fruit tree, Monstera deliciosa, though the true Bread-fruit belongs to an altogether different family of plants. The Magnolia is a variety of acuminata, and it bears yellow flowers. Clerodendron Balfouri is a pretty climber; and a small but very beautiful plant is Saintpaulia ionantha, the Cape Violet, with downy, fleshy leaves."

"You also manage to grow Caladiums?"

"Yes; they are useful for conservatory work, and so are the Crotons. The Gloxinias are grown for the same purpose.

There were several other choice things in the stove; but we passed on into the Melon house, where some handsomely variegated Coleus were growing on the front of the staging. These are also intended for decorating the conservatory.

In the intermediate house there were more Coleuses, a fine batch of Schizanthus, and among other things some Regal Pelargoniums, Fuchsias, Streptosolen Jamesonii, and Celosias.

Outside, on the walls, Brown Turkey Fig fruits regularly, and keeping it company are Transparent Gage and Pear Williams' Bon Chrêtien. Down a few steps to the first garden, the wall is covered with dessert Pears, such as Thompson's, General Todleben, Louise Bonne of Jersey, Marie Louise, Doyenne du Comice, and Pitmaston Duchess, and in front is an early border, which then had Peas and Potatoes.

THE FAMOUS BEECH AT TOTTINGWORTH PARK.

This tree marks the site of an ancient British camp, the remains of which can be clearly traced.

"What varieties of Potatoes do you prefer?" I asked.

"For earlies, May Queen and Royal Kidney are good. Dalmeny Beauty is liked; but for keeping I believe more in The Factor. The Pea is American Wonder."

The next division of the garden is on similar lines, with the retaining walls utilised for Pears and Plums. Herbaceous borders run the length of each, and there are likewise borders eight feet wide on either side, which in winter and spring are covered with frames for early vegetables and salads. All the beds are edged with dwarf Box. The Cucumber house is now used for Tomatoes, Carter's Sunrise and Holmes' Supreme being grown.

The new frame yard is of considerable extent, and contains both heated and unheated pits and frames. Early Potatoes were being lifted from some; in others, early Beans and Vegetable Marrows were fruiting. There were several filled with annuals for bedding, and good batches of the variegated Geranium Mrs. Pollock, Paul Crampel, Ivy-leaved Souvenir de Charles Turner, Stocks, and Asters were in others.

A large greenhouse occupies the old frame yard, and is enclosed by a hedge of Cryptomeria japonica, nine feet high and four or five feet through, which was planted to form a shelter to the frames. In one division of the house Roses Niphetos and Gloire de Dijon are grown; the next has a number of Perpetual-flowering Carnations, also many seedlings of Allwood's strain, Salvia Fire King, and other plants, with Figs on the back wall. There is a larger house, containing three hundred plants of Perpetual Carnations, from which, during April, over four hundred and fifty blooms had been cut. Among the leading varieties are Mary Allwood, May Day, Bishton Wonder, R. F. Felton, Carola, Wivelsfield White, Snowstorm, Lady Miller, Mikado, Baroness de Brienen, Rose Doree, and Edith Waters.

The Chrysanthemums standing outside were looking very healthy and clean, and I was informed that large-flowered Japanese, decoratives, and singles are grown in quantity, and are used for cutting and indoor work.

Time did not permit of my exploring all the shrubberies on our way back from the kitchen gardens, but enough was seen to enable me to congratulate Mr. Masson on the foresight displayed in planning the grounds, and the skill and attention since bestowed to bring everything to its present high state of cultivation.

W. J. CHITTENDEN.

## *ONION MILDEW.*

During the coming weeks, the Ministry of Agriculture points out, Onion growers should keep a sharp look-out for mildew, a pernicious fungus which occurs very generally in Onion beds. It usually appears towards the end of June, and the first symptoms are pale spots or blotches on the leaves. These blemishes occur chiefly on the upper part of the leaf, gradually increasing in size, and merging into one another, until the whole leaf is affected and finally withers up.

As the disease proceeds, the smooth surface that characterises the healthy leaf gives place to a roughness, easily detectable to the touch, and this characteristic clearly distinguishes mildew from injury arising from other causes.

At a later stage of the attack, black spots often develop in the mildewed areas, and in certain cases the whole of the infected portion may turn black. This change, however, is due not to the fungus itself, but to a black mould called Macrosporium parasiticum, or "large-spored parasite," which often follows it. The presence of the black mould among Onions is usually a sign that the crop has suffered from mildew earlier in the season.

This fungus differs from true mildew, of which the distinctive mark is that the mycelium or spawn is external. Onion mildew fungus has the mycelium internal, living inside the leaf, and producing external filaments only when it is about to fruit. In this respect it resembles the Potato blight fungus, to which it is closely allied. Under the microscope, the diseased spot shows the leaf to be densely permeated by the mycelium, spores being produced on very minute branch threads emerging through the stomata or breathing pores, in such a way as to form a furry layer on the surface of the leaf. It is this furry layer that makes the mildewed spots rough to the touch. Another form of the spore, known as the resting spore, is produced inside the decaying leaves. These fall to the ground with the dead leaves, but do not rot with them, and thoroughly infect the soil, thus causing a renewal of the attack in the following year. Even when buried, they retain their vitality for several years, and germinate when they are brought to the surface. Should Onions happen to be planted at any point within range of germination, they will be sure to suffer.

MR. AND MRS. J. MASSON.

Mr. Masson came South in 1881, to take charge of the gardens at Tottingworth. The late Mr. Logie-Pirie and he planned and laid out the estate.

#### REMEDIAL MEASURES.

The fungus does not attack the bulbs, but is confined to the leaves. Its presence means, however, that the bulbs will not grow to any size, and in bad cases mildew may destroy the crop entirely. An effective check is spraying or dusting with a fine dry powder fungicide, but this treatment will succeed only if it is applied early. Bordeaux or Burgundy mixtures of about the same strength as that used for Potato disease, make a useful and effective application. Spraying should begin about the end of June, and if the weather be damp and cloudy, the operation should be repeated at intervals of ten days. The best time to spray is early in the morning. The smooth surface of the Onion leaf does not permit the spraying mixture to adhere very well, and therefore some growers prefer to dust the leaves with a dry powder. This should be applied when the plants are wet with dew. Other suitable applications are flowers of sulphur, black sulphur, or a mixture of powdered lime and sulphur, one part of lime to two of sulphur. The powder may be applied by means of a sulphurator or bellows.

The disease usually spreads from one or more centres, especially if the Onions have been autumn sown. Badly infected individual plants should be removed and burned before the disease can spread. After the removal of the infected plants, the remainder should be sprayed. Growers cannot be too careful to bear in mind the fact that the resting spores are the most dangerous. It is therefore imperative to avoid soil where badly diseased plants have previously existed. It is absolutely essential to burn diseased tops; they should never be thrown upon the refuse heap or into the piggery.

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Oxford Dictionary of National Biography

**Masters, John White** (1791–1873), *botanist and poet*
by Tony Fairman
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**Masters, John White** (1791–1873), botanist and poet, was born on 16 January 1791 and baptized on 23 January at St Mary's, Ashford, Kent, the last of eight children of William Masters (*c.*1749–1837), weaver and workhouse master, and his wife, Martha (*c.*1750–1817), workhouse mistress, both of Wiltshire. Comparatively little is known of Masters's early years. His parents became master and mistress of Chartham workhouse, near Canterbury, in 1801. Perhaps as a result of this environment, Masters was sympathetic towards the poor throughout his life. He was probably educated and trained in horticulture in Canterbury.

Until 1830 Masters worked as a gardener in Sheldwich, near Faversham, and then in Faversham itself, but travelled widely. Later he wrote that in Kent ‘there is scarce a field that I have not been into’ and that he had visited Essex, Sussex, Lincolnshire, and Yorkshire (*Transactions of the Agricultural and Horticultural Society of India*, 5, 1838, 8). About 1820, while in Faversham, Masters wrote a poem of 100 four-line stanzas, mostly in Kentish dialect, entitled *Dick and Sal, or, Jack and Joanses Fair*; although he disparaged it as ‘doggerel’, it was, in fact, well written. Possibly influenced by the botanist John Ray's *Collection of English Proverbs* (1670) and *Collection of English Words* (1673) and by Robert Bloomfield's *Richard and Kate, or, Fair-Day: a Suffolk Ballad* (1802), Masters was innovative in handing over the narration almost entirely to a Kentish voice, which tells an amusing and fast-moving tale of a visit to Canterbury Michaelmas fair, with comments on several contemporary local residents. Perhaps as a result of his horticultural training, Masters showed a praiseworthy ability to observe and classify dialect objectively. By 1910 at least seventeen editions of *Dick and Sal* had been printed, each with a slightly different text, thus recording changes in Kentish dialect and in ideas about dialect during the century. The text of the first edition was reprinted in 1999, in Arthur Percival's *A First Anthology of Faversham Verse*. Even the title was changed to the one by which the poem came to be better known: *Dick and Sal at Canterbury Fair*. The poem was imitated in Sussex by Richard Lower (alias Uncle Tim) in his *Tom Cladpole's Jurney to Lunnon* (1831), and seems to have started a dialect genre on the theme of ‘country lad and country lass venture by some means outside their area and find adventure’. Examples were soon to be found in, among other counties, Essex, Lincolnshire, and Lancashire, where the theme merged with the flowering of dialect writing in northern England.

On 29 August 1819 Masters married Sarah (1787–1826), the daughter of John and Sarah Drewry of Eastling, Kent. Their only child, Leah, was baptized on 2 September 1821. There is a family story that, about a year after Sarah died, Masters was walking with Leah when ‘a savage bull charged them; whereupon the father, in his anxiety to save his child, threw her over a fence with the result that one of her legs was damaged and she was lamed for life’ (private information).

In June 1830, leaving his daughter with relatives, Masters sailed to Calcutta, where initially he taught in his nephew's school and was appointed the equivalent of a

parish overseer, distributing ‘pensions to aged and infirm Paupers of all denominations including several hundred Hindoos and Moosulmans’ (*Calcutta Annual Directory*, 1835, 131). He also became a very active member of the Agricultural and Horticultural Society of India, publishing several papers on horticulture and botany in the *Transactions/Journal of the Agricultural and Horticultural Society of India*, 1836–50. In 1836 he was appointed head gardener of the East India Company's botanic gardens in Calcutta, a post which he resigned in 1838 after a misunderstanding. He then started compiling ‘Calcutta flora’, which was published in the *Transactions* (7, 1840, 39–85).

In June 1839 the newly formed Assam Company appointed Masters head superintendent of the first commercial tea estates in India. Situated in Upper Assam, these were intended to overcome the Chinese monopoly of tea. Despite an unhealthy climate, illness, and living conditions like those of paupers in Kent, he established the well-known tea estates in the Brahmaputra valley surrounding Nazira, the headquarters of the plantation. He provided his Assamese labourers with a staffed clinic and school, learned their language, and protested to the Calcutta board of directors about their low wages. Following company policy, he cleared of jungle as much suitable land as possible. In 1842 he produced over 31,000 lb of tea from 1645 acres. But, since this was about 25 per cent less tea than he had predicted, the income did not cover the company's ambitious expenditure. The board suspended him and he resigned in July 1843.

While working for the Assam Company, Masters continued to pursue his interests in botany. By 1843 he had completed two collections of more than one thousand plants each, which he sent to Calcutta. They eventually reached Sir William Hooker at Kew Gardens, where their meticulous labelling was noted. In total he made at least six large collections of Assamese plants for ‘the promotion of Science’. In honour of Masters's achievements William Griffith, botanist, named after him at least two species Masters himself had collected: a small palm, *Calamus mastersianus*, and a beautiful flower, *Camellia mastersia*. After Masters returned to England, George Bentham named a genus of twiners *Mastersia assamica*.

After leaving the Assam Company, Masters became sub-assistant commissioner and magistrate for the Golaghat district of Assam, where he continued to study plants and geological specimens. In 1863 he retired as an uncovenanted civil servant and returned to Faversham, where he donated Assamese specimens to the Faversham Institute. Inspired, no doubt, by the continuing popularity of *Dick and Sal*, he wrote an inferior sequel in standard English: *‘Richard and Sarah’, Waiting for the Train* (1868), which was not published until 1897, in the *Faversham Institute Journal* (August, 445–7). Masters died at his home, 19 Court Street, Faversham, on 15 February 1873, and was buried at St Mary's Church, Faversham, on 20 February.

TONY FAIRMAN

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**Archives** RBG Kew, corresp.

**Likenesses** photograph, 1863?, priv. coll.

**Wealth at death** under £200: Masters family biographies, private information

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Tony Fairman, 'Masters, John White (1791–1873)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/59516, accessed 13 Nov 2014]

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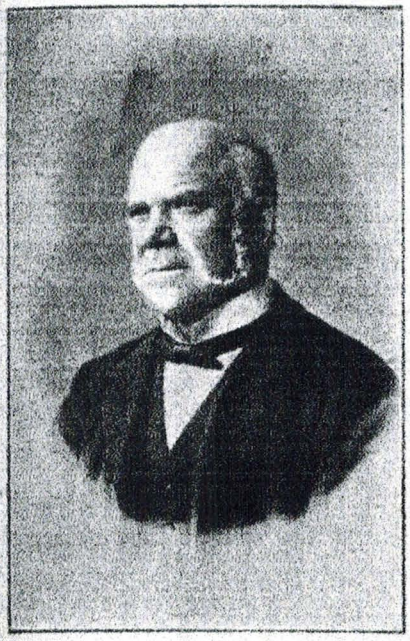
September 1st.—In an article on "Vegetables for Market," published in the Journal of the Royal Horticultural Society, Mr. W. G. Lobjoit draws an interesting comparison between the present and the past. "Two tendencies," he says, "may be noticed as having been at work in recent years among cultivators of market vegetables, each possibly an effect of the operation of the same economic causes. The one is the cheapening of the methods of cultivation, digging-ploughs having taken the place of spade trenching. Twenty-five years ago many acres of land in Fulham were bastard-trenched at 6d. a rod every winter. Planting by the line, where considerable breadths are cultivated, has given place to marking with a horse-racer. Radishes used universally to be sown by hand in beds previously carefully raked level, and afterwards 'casted' with the spade; now they are mostly sown broadcast with a 'fiddle,' and harrowed in, or even drilled with a horse drill. Asparagus used to be grown in beds five or six feet apart, 'spitted' and 'landed' with the spade every spring, after being forked down in the autumn; now it is planted in rows three feet six inches apart and moulded with the plough. When I left school a cart was not allowed upon the Rhubarb; manure was wheeled on, the crop was carried off; now the manure is carted on and the crop carted off. Twenty years ago, acres of Peas and Beans in market gardens were grown on sticks; now such a thing is scarcely seen. The Peas are moulded to lie all one way, and the Beans are planted in rows half the distance apart, and stopped by picking out the tops of the shoots. There is, possibly, much room for ingenuity yet, in cheapening production by saving unnecessary labour." It is here that the cultivator on a small scale cannot compete with the cultivator on a large scale. He must have recourse to expensive manual labour, where the latter can use ploughs, horse-drills, and other similar appliances. His only hope lies in growing better produce capable of fetching the higher price which he must charge for it, and this is by no means impossible. The other tendency of the present day, according to Mr. Lobjoit, "is the increase in the variety of the crops grown"; Celeriac, Tomatoes, Aubergines, Corn-cobs, Whitloof, New Zealand Spinach, have all been added, so to speak, to the market gardener's repertoire. I wonder how many people know what Whitloof is. I did not when I came across the name in this article, but, looking it out in a gardening dictionary, I find that it is a synonym of Chicory. There is also another very striking tendency in market gardening, and that is specialisation, one man being interested mainly in Potatoes, another in Asparagus, and so on. Mr. Lobjoit mentions "a grower near Sandy, who claimed to have put fifty tons of Parsley on rail at a time, chiefly for Scotland." Prodigious, surely!

H. C. DAVIDSON.



MR. J. MAY.

# Famous Gardeners at Home.

No. 153.—MR. JOSEPH MAY, AT NORTHAW HOUSE GARDENS, POTTER'S BAR.

FOR upwards of a quarter of a century, Mr. Joseph May has been head gardener at Northaw House. When the property passed into the hands of the present occupier, Mr. J. B. Joel, the services of Mr. May were retained, and he has continued to maintain the high reputation of the gardens under his charge. At the Holland House show this year he had the gratification of obtaining a medal for his exhibition of Strawberries of the Waterloo variety. But on the occasion of my visit, towards the end of July, he suggested, with characteristic modesty, that any details about himself should be given at the end of our chat, and we accordingly started at once on our tour of inspection, beginning with the Nut and fruit trees close to Mr. May's own pretty cottage, and just outside the kitchen garden.

"This, you understand," he said, "is an old-fashioned place, and we do not make a show. The rows of Kentish Cobs and Filberts, grown on the flat for the extension of the branches, which do remarkably well here, were planted at the time I came."

"Does the Holly hedge date from the same period?"

"Yes. The varieties of Apples, which, as you see, are all standards, above the Nuts, include Lord Derby, Ribston Pippin, Hoary Morning, Mère de Ménage, and Waltham Abbey Seedling. The yellow Gage Plum tree on the outside of the garden wall, a model of good training, was planted at the same time."

Entering the kitchen garden, which is enclosed by high walls and covers about an acre, my attention was at once arrested by a number of perfect specimens of Roses on poles, and I observed,

"You certainly believe in making your kitchen garden as charming as you can?"

"It has always been a point with us to have plenty of flowers, so that the garden may look bright, and be pleasant to walk in."

"I should like to know the names of some of the Roses on poles, which are such a noteworthy feature."

"One of the best is Felicité Perpétue, a semi-double white, which is a very rapid climber. Among others are Cheshunt Hybrid, the Dawson Rose, Crimson Rambler, Madame Alfred Carrière, and Claire Jacquier."

"How long have they been planted?"

"Five years. No doubt the wonderful growth is largely due to the fact that the soil suits them well."

"You have also a fine collection of Roses in the border."

"They comprise most of the principal up-to-date varieties, such as Frau Karl Druschki, Papa Gontier, Gustave Regis, Duke of Edinburgh, Maman Cochet, Clio, La France, Viscountess Folkestone, and Madame L. Messent. We go in for the dark and pink, rather than the white varieties. In the centre borders, beneath the Roses, are Asters and Stocks. The latter are Veitch's New White Perpetual, and Giant Scarlet."

"The Box with which the garden paths are all edged, gives them a very trim appearance."

"It has been there for upwards of twenty years, and is about two inches high. Sweet Peas of all the choice varieties are grown among the new Roses."

"You have a remarkable display of Zinnias."

"There are more than 1,200 plants dotted in the middle of the garden, one wide border being entirely composed of them. I have grown Zinnias for years. These are of the grandiflora

NORTHAW HOUSE AND TENNIS LAWN, POTTER'S BAR.

kind, and include all the bright colours. They are one of the first of the annuals to flower, and last from July until the frost comes. Hot weather suits them."

"Wall fruit is quite a feature of the garden?"

"Yes, the walls were replanted six years ago. The varieties of Peaches are Grosse Mignonne, Dr. Hogg, Hale's Early, Bellegarde, Dymond, Goshawk, Prince of Wales, Princess of Wales, Sea Eagle, and Late Devonian; the Nectarines, Elruge, Lord Napier, Cardinal, and Précoce de Croncels. Plums and Cherries are grown, and Pears on the cordon system."

"Apples, I notice, are grown both on pyramids and espaliers."

"They were all planted when I came. The principal varieties on pyramids are Mank's Codlin, Lord Suffield, Cox's Orange Pippin, Sunrise, Golden Pippin, Lane's Prince Albert, Bismarck (which does exceedingly well), Bramley's Seedling, Peasgood Nonsuch, Ribston, King Pippin, and Lemon Pippin. On the espalier, Lord Derby does well; also Sturmer Pippin, Lady Sudeley, Worcester Pearmain, Adams' Pearmain, and several kinds of Russet."

"Where do you grow all your Strawberries?"

"Under the other outside wall, as well as in the middle of the garden. We only grow two varieties, Waterloo and Royal Sovereign. Waterloo Strawberries are a great feature, and a fine late variety. The plants are retained for three years, the best fruit being obtained the second year. We gathered a large quantity of Royal Sovereign (which we retain only two years) for a party on the 22nd of June. Superlative is the principal variety of Raspberry grown. We net Gooseberries and Currants, as well as Strawberries and Raspberries."

Having noticed a bed of Old Clove Carnations, and the large space devoted to Violets (Marie Louise), I inquired about the vegetables.

"Criterion is our maincrop Pea, but, to take them in their order, we grow Chelsea Gem, Earliest Marrow, Veitch's Acme, Gradus, and Criterions. Our chief Potato has been Syon House Prolific, for which an award of commendation was given at the Drill Hall."

"Syon House is for your main crop?"

"Yes, and Ashleaf Kidney for the early crop. This year I have been trying experiments with a number of new varieties, but I am doubtful whether any of them will beat Syon House, which has proved quite disease resisting. Out of a ton last year, and in spite of the wet season, we had not a gallon affected by disease."

"What are the varieties with which you are making experiments?"

"Sir John Llewellyn, Evergood, King Edward the Seventh, Northern Star, Sutton's Discovery and Eldorado. I have also grown some of Veitch's English Beauty for a couple of years."

"I admire the appearance of your Brussels Sprouts."

"They are Northern Prize (May's). It is of medium size, firm, and one of the best exhibition varieties."

"As to other vegetables," continued Mr. May, "our Onions are Veitch's Main Crop and Rousham Park Hero. The Carrots are Early Nantes, Scarlet Model, and Veitch's Matchless Scarlet; the Beet, Selected Red and Improved Black; the Lettuce, Mammoth White Cos, Perfect Gem, Hick's Hardy, and Bath or Brown; the Celery, Superb White, Major Clarke, and Standard Bearer; and the Scarlet Runners, Mammoth Scarlet, Scarlet Champion, and Ne Plus Ultra."

Having finished our rapid survey of the well-ordered and well-kept kitchen garden, we turned into the Vinery, which was planted when Mr. May became head gardener at Northaw House. The principal variety is Black Hamburgh, with a few rods of Gros Maroc and Foster's Seedling. There are also Ferns in the Vinery.

"What Cucumbers and Melons do you go in for?" I asked.

"The three varieties of Cucumbers are Sensation, Challenger, and Tender and True. The Melons are Syon House, Beauty of Syon, Frogmore Scarlet, Victoria, and Gunton Scarlet. The fruits average three on a plant. In this house there are also Adiantum Farleyense, and Caladiums."

"Do you flower Chrysanthemums in the cool house?"

"Yes. Amongst the numerous varieties we grow—they are at present in the training ground—are Sensation, Florence Molyneux, Godfrey's Pink, Bessie Godfrey, Godfrey's Masterpiece, Mrs. Barclay, J. R. Upton, Simplicity, and Mrs. Mease; altogether there are about five hundred plants, chiefly Japanese."

"And Malmaison Carnations, of which I see you have still some in flower?"

"About five hundred. The varieties include Princess May, Lady Grimston, the old Blush, Mrs. Trelawney, Cecilia, and Robert Burns. On the back wall of the cool house are Geraniums, Madame Crousse and Souvenir de Charles Turner, with Plumbago."

"You have a beautiful lot of Madame Crousse."

"It does well here, and is very decorative."

Adjoining the cool house is a house filled with Tomatoes, Ham Green and Frogmore Selected, and close by is the Orchid house, which contains a number of plants in a remarkably good state of cultivation.

"Night, Uncle Tom, Starfish, Lord I Ignea, Mrs. Wilson, Noble, Radiance, C and Mrs. Sanders are some of the best new varieties. On both sides of the suc border are Crimson Ramblers on poles Peas, Dwarf Marigolds, and a few dwarf Then comes the long border of Geraniums extends to the house. The varieties Flower of Spring, Henry Jacoby, and M Crousse, behind these being masses of P Laurels, Aucubas, and other shrubs."

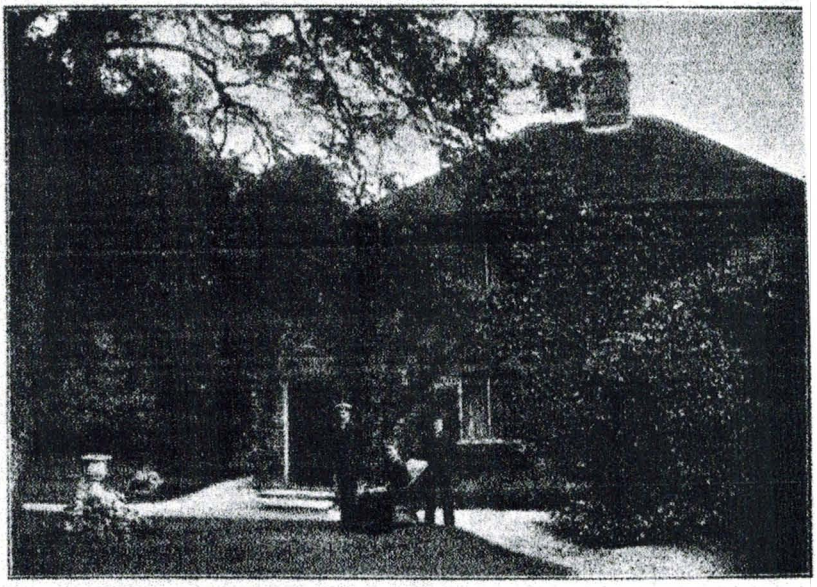
"The house is well covered with Ivy."

"Yes, the gold and silver Ivy, and a common Ivy. One of the principal feat the house is a fine specimen Ceanothus more than twenty feet high, and twent feet wide."

"How old is it?"

"About sixteen years. In April and was a mass of rich blue flowers."

"The winter garden contains a num thriving Palms, Kentias, Cocos plumos Weddelliana, etc. They and the fine ol Fern trunks are the chief contents just no Ficus repens, which covers part of the the winter garden, keeps it cool in summe



THE GARDENER'S COTTAGE, NORTHAW HOUSE, POTTER'S BAR.

"There are upwards of six hundred in all," said Mr. May, "and both the Orchids and Carnations are under the charge of my son."

"They do him credit, especially the Cattleyas."

"The Orchids are all of the Cattleya family. The C. gigas are considered the best. Ours is a form of gigas which is usually shy in flowering. Here it is quite the reverse. The size of the bloom is remarkable."

"How many flowers are there on a spike?"

"They average four, but some have five and some six. We got a cultural commendation from the Royal Horticultural Society for a fine specimen, Cypripedium Rothschildianum. We grow most of the well-known species of Cattleyas, and obtain a long succession of bloom."

Passing through the training ground, where the Chrysanthemums looked very promising, I was much impressed with some more Roses on poles, this time Crimson Ramblers, which, grown about fifteen feet high, exclude from sight the buildings attached to the adjoining farm.

The flower garden is approached by grass paths, with a very effective border, in which Dahlias of the Cactus species are well represented. I asked for the names of a few.

Bougainvillea, in addition to its showy ap ance, adds to the same purpose."

"What do you grow in the border which right down to the paddocks and woods?"

"Mainly Tropæolum, King of Tom Thu and hardy herbaceous plants, with ornam Yews and hardy shrubs as a background."

"I suppose you agree that Fuchsias ar prevailing feature on the lawn?"

"Yes, they are intended to be. Grow standards and pyramids in long and oval the varieties are Mrs. Marshall, Mrs. Rar Scarcity, and Ballet Girl. The standards va height from two to six feet. The Fuchsia are edged with a few Geraniums, Mrs. Pol and some Cannas help to fill the centre."

"Then, there are the six bronze vases or lawn."

"At present they contain Geraniums. Edward the Seventh. Worthy of mention or lawn, too, is the large specimen of Arau imbricata, about fifty feet high; and, be this, near a background of Crimson Ramble poles, is an ornamental block filled with flo ing creepers, etc., to match the surroundings.

"How large are the pleasure grounds?"

"Two acres. The gardening staff consist

night, and we consider the kitchen garden the feature here."

"Have you done much showing?"

"I have shown a good deal, chiefly in vegetables grown outside, at the London shows. It may interest you to know that in my capacity as decorator, when I was living with the late Lady Brassey, I was the first person to bring Marguerites to London for decorating."

"You set a fashion then, Mr. May. Where did you commence your own career?"

"In the gardens of the Rev. P. Phillpots, Porthgroudden, Cornwall, under the late George Austin. From Cornwall I went to Mereworth Castle, near Maidstone, Lord Falmouth's Kentish seat, under Mr. W. Allen. My next post was at Normanhurst, Lord Brassey's seat, where I was foreman for some time, also under Mr. W. Allen. Then I came to Northaw, and for twenty-six years I have been here, first with Captain le Blanc, and for six years with Mr. Joel."

ALFRED WILCOX.

# Letters from a Lady Gardener.

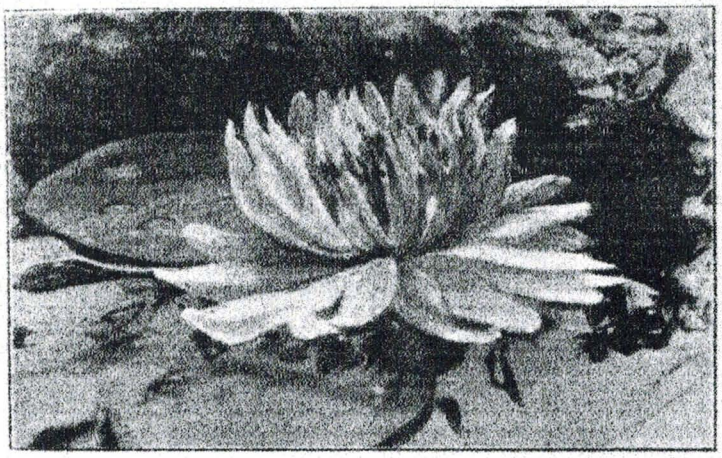
No. 110.—THE LAWN IN AUTUMN.

DEAR KATE,—This is the time I like to take the lawn in hand, for seed sown now, although it may not appear above ground before next March, will be "busy growing" (as an old gardener of mine used to say) under the surface, forming fine tufts of root, from which tufts of grass will spread in spring, instead of the single spikes which take so long to form a sward, and are so often destroyed by the tennis-player's foot.

If your lawn suffered during the drought in July, or has been worn by play, now is the time to see to it; and, in any case, a slight top-dressing of fine soil and soot (the latter in the proportion of six to one, or less) will do it much good, and strengthen it before the winter, when many lawns fall a prey to moss, and the finer grasses are apt to die out. Last winter was such a wet one that moss flourished more than usual, and where the habit of carrying away the cut grass twice a week obtains, the soil soon becomes exhausted, and top-dressing must be attended to, or the sward will suffer severely. It is a better plan to do away with the hood of the lawn-mower, and let the short cut grass lie where it falls; the sun soon shrivels it up, and it makes a slight top-dressing, besides helping to protect the cut blades for a few hours from being scorched brown by the hot sunshine; but even where this is done, a little soil occasionally will be of service, for where the grass is weak and ill-nourished, weeds are sure to abound, whilst if the grass be strong, it will eventually gain the victory, and press the weeds out of existence.

A really well-kept lawn is not too common, Plantains, Daisies, and Dandelions are to be found in most pieces of grass, yet their elimination is just the work for a lady, who can either use a spud, or prefers to sit on a footstool, armed with a short, old knife, and a saucer of coarse salt, such as is sold specially for agricultural purposes. An hour or two of persistent work each evening will soon make a great change in the lawn: even without the knife, the salt sprinkled in the centre of Plantains, Daisies, and most other weeds, will be their death-blow, and they will shrivel up, helping to nourish the grass, which quickly takes their place. But Dandelions need sterner measures, for each must be cut off an inch or two below the surface, and half a teaspoonful of salt (or lawn sand) should be dropped into the hole, so as to rest on the top of the cut root, which is often a foot long, and will quickly form a fresh tuft of leaves, unless this is done. Then there are several terrible enemies of the grass which are fond of appearing on my lawn (which gets all kinds of seeds from the surrounding fields), but they get but short shrift here, for the lawn is my special care, and there are few days in the spring and summer in which it is not attended to. These weeds have an unpleasant plan of throwing out long layers under the grass and appearing at a few inches distance, in this way making great strides if left alone. Buttercups do this, and so does the Mouse-ear Hawkweed (Hieracium pilosella), a deadly weed on a lawn, which quickly makes large patches, and kills the grass. The Blue Bugle (Ajuga reptans) is another, and Potentilla sylvestris (well called tormentilla, for there is no more tiresome weed in the garden) is just as bad; but, fortunately, these and most other herbaceous weeds succumb to a sprinkling of salt over their foliage, if not allowed to get ahead. Tormentilla will, however, throw down a woody tap-root a foot long, if not eradicated whilst young, and then it has to be cut out and poisoned in the same way as the Dandelions.

In sprinkling weeds with salt or lawn sand, be careful not to leave any lumps about, as these are apt to dissolve slowly and make bare places by killing the roots of the grass below them; however, any accidental bare place can now be sown with fine grass seed, covering it to the depth of a quarter of an inch with good, rich loam (sifted, as everything for a lawn should be, through a fine riddle), and making it firm with the back of the spade.



NYMPHÆA SULPHUREA GRANDIFLORA.

The Water Lilies, each growing in a tub sunk in the sloping side of the lawn, have been very beautiful this year, and are still in bloom, for sunshine suits them well. I will send you a photograph of the latest of M. Marliac's triumphs in hybridising, Nymphæa atropurpurea. Its blossoms are deep crimson, and the foliage is bronze, so that it is a great contrast to many of the pale pink varieties, and also to N. sulphurea grandiflora, a most beautiful Water Lily, in delicate primrose-yellow, with a great bunch of golden anthers in the centre. N. gloriosa is still one of the most glorious, in glowing crimson, with larger flowers than the rest; and N. lucida, a star-like blossom in exquisite shades of clear pink, is one of the loveliest of all.

Keep this letter by you, and order them for next April; they are not very expensive now, and everyone should grow them. We are now taking in the blue Water Lily I told you about, as it is too delicate to stand even slight frost at night; it is a tender plant, and cannot be managed easily like the rest. I believe M. Marliac is doing his best to obtain a hardy blue Water Lily. More power to his elbow, I say, for this Nymphæa stellata is quite on my mind, and I wish it were hardier, and would grow in a tub out of doors, like the rest.

We have now succeeded in balancing the vegetable and animal life in each tub satisfactorily, and the consequence is that they are no trouble at all, only needing to be filled up occasionally, when the weather is hot and dry, and the water evaporates quickly. Newts, water-snails, and a frog or two, with various water-spiders and other insects, constitute the population of the tubs, and the water is kept absolutely clear and clear by them. The work of the water-snails is to eat up the green, shiny pond-weed, which would otherwise strangle the Lilies (for it appears on every bud and leaf where there are no water-snails); they never eat the foliage of the Lilies, fortunately, but they lay their eggs, which are clear, like glass, on the backs of the leaves sometimes; this, however, does them no harm, as the little creatures soon hatch out. The newts are invaluable scavengers, and also propagate their kind in the tubs, so that we have plenty of young ones to put into the new tubs which we hope to add next spring, when we expect to have two new and hitherto unknown Water Lilies from the South of France, "*très distinctes, et d'une ravissante beauté*," to quote from M. Marliac's description of them. Between the tubs we plant out (in May) Daturas (Brugmansia Knightii), with great, white, fragrant trumpets, and other handsome specimen plants. These are now being cut round with a small, sharp spade, to the size of the large pots into which each is to go for the winter, and ten days later they will be carefully lifted, without breaking the ball of roots, and placed in their pots, with a little very rich soil (for they are hungry feeders). After that, they should stand against a north wall, or in any shady spot, for two or three weeks (until they have got over the shock), before they are placed under glass for the winter, when the buds will go on opening quite happily; but they need plenty of water and liquid manure.

Your friend,

I.L.R.

THE Prune, or Shropshire Damson, is a far superior fruit to the common Kentish Crittenden Damson, and should be more extensively grown.

A FINE Blackberry harvest is expected. The first consignments sold at £3 5 a ton in Covent Garden Market, but the price was expected to reach £5 0. It is early for them yet, and they will probably fall to about £1 0, presently. Large consignments from Ireland are expected.

Daisies, or Starworts, which will grow almost anywhere with very little attention, are often classed as "cottage-garden plants," which seems to me rather a libel upon cottagers, for, as a rule, they take far more trouble with their gardens than many richer people do. Plenty of moisture seems to suit these perennial Asters, for they have been unusually fine this year. They have been wonderfully improved by the hybridist,

MR. JOHN MAYNE.

and the newer varieties are a great advance on the old-fashioned kinds, which are still far too common. I can't help thinking that our public gardens might be made much more useful, without being less ornamental, than they are. If new and old were planted side by side, it would serve as a valuable object-lesson. People would soon be able to see for themselves what was being done in the more important classes, and would thus be induced to select the good, and to reject the bad. There is one mistake frequently made in growing Michaelmas Daisies and other herbaceous perennials. When the clumps get too large, the outer portions are chopped off, though a moment's thought would show that they must be stronger than the centre, which is not only older, but also occupying soil practically exhausted. The proper method, of course, is to select the more vigorous parts of the plants for replanting, and to throw away the remainder. If the replanting is to be performed at the same spot, it should be only after trenching and manuring.

November 19th.—I have been talking to a man who has travelled a good deal, and has done what all travellers do not do—kept his eyes open. He tells me that there is a surprising difference between the appearance of orchards in the United States and in Canada and of those in this country. The difference is due to the different methods of pruning. In England, fruit trees are allowed to grow in a more or less natural manner, pruning being confined chiefly to thinning out crowded shoots, so as to admit light and air to the centre. In America this practice of admitting light and air is carried out to a much greater extent. There, a standard Apple tree, for example, is treated much as we treat an espalier, every lateral being cut close in, so as to form spurs (after the manner of Vines), and the growth being confined to the extension of seven or eight main branches, selected in such a way as to form a symmetrical head, and not to be too close to one another, and encouraged to grow as nearly vertically as possible. For the production of fine fruit, this appears to be an excellent method, for the energy of the trees, prevented from expanding itself upon the formation of useless growth, is mainly concentrated upon this single function. The uprightness of the branches enables the grower to plant much more closely than he could otherwise do, and helps them to support, without injury or loss from wind, a much greater weight than they could do if they were much bent. Obviously, orchards of such trees must present a very different appearance from that of our English orchards, where lateral growth is usually abundant, and the natural habit is seldom obscured by pruning. That the latter look better there can be no question; but that the former are likely to yield a more regular crop of finer fruit seems equally certain. I once had a number of Pears—Hessle Pears, if I remember aright—which grew naturally in much the same way as these American trees are made to do, and never before or since have I obtained such crops from the same area of ground. I can confidently recommend this method to others, and having recently planted a dozen young fruit trees of the best varieties, to fill up gaps caused by the removal of worn-out trees, I intend to practise it myself.

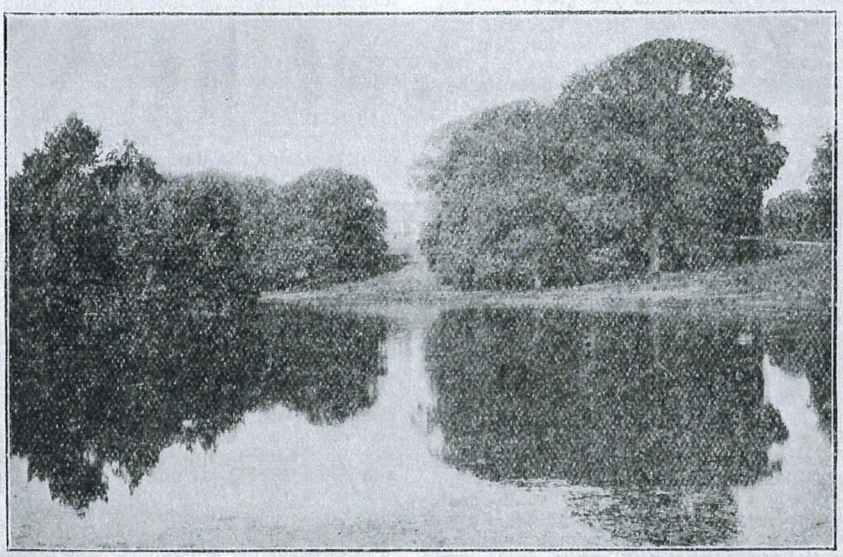
H. C. DAVIDSON.

*(To be continued.)*

## FAMOUS GARDENERS AT HOME.

### No. 112.—MR. JAMES MAYNE, F.R.H.S., AT THE GARDENS, BICTON.

NOT only is Bicton, of which the Honourable Mark Rolle is owner, the largest estate in Devonshire, but the gardens are as lovely as any that can be found in that most beautiful county.



THE LAKE AT BICTON, WITH HOUSE IN DISTANCE.

Visiting them on an autumn day, for two or three hours, when sunshine and showers alternated as rapidly as in April, the impression which I formed on a previous occasion, when I had merely a passing glance, was more than confirmed. Their charms in October are, in fact, scarcely less abundant than in the early summer; and nothing struck me more than the evidences of careful cultivation in every department. The knowledge and experience which Mr. James Mayne possesses are clearly brought to bear, not only in his personal efforts to keep pace with the times and effect improvements wherever he thinks they can be made, but also in respect to the work of his subordinates. Some idea of the nature of the demand on the resources of the gardening staff may be given by the information I was able to obtain from Mr. Mayne, but no attempt is made to exhaust even the features of interest which, in a limited period, I had the opportunity of seeing.

The glasshouses and the flower garden, which are close to Mr. Mayne's own residence, are a quarter of a mile from Bicton House, and we naturally turned our attention to them at the outset, starting with the large Camellia house, one hundred and twelve feet long, by fifteen feet wide, and thirteen feet high.

"Here," said Mr. Mayne, we grow the double and single varieties, of which the largest is reticulata. From January onwards this house is a mass of bloom, and we cut a great quantity of flowers. Lady Gertrude Rolle, who understands gardening thoroughly, and is very fond of it, likes to use Camellias for decorative purposes. I think that they are coming more into fashion."

"Do you grow them outside much?"

"They will grow outside all right if the frost does not cut the flowers. The foliage is quite hardy. The best of the varieties are Beauty of Waltham, alba plena, Bealii, candidissima, Chandlerii, Conspicua, Countess of Orkney, Donckelaari, eximia, imbricata, Lady Hume's Blush, Matthotiana, Montironi (a very fine white), and, of course, reticulata. In order to prevent them growing too freely, we have to cut them back so much that sometimes there are only a few flowers to a plant. We do not put any of the Camellias in pots; they are all permanent in the beds."

"I see that you have a number of pot-Calanthes in the Pine range?"

"Yes; we have a hundred and thirty pots, three to five bulbs in 5-in., 6-in., and 7-in. pots, respectively, of Calanthes, Veitchii being the chief variety. They are most serviceable from November to February. In this range Melons are grown largely in the summer, and Cucumbers in the winter. There are still some Pines ripening."

"Do you ripen many in the summer?"

"About sixty. We grow The Queen's mainly. Pines are not specially difficult to grow. The most important point is the water-

ing, which has to be done most judiciously, as at times the plants require to be kept dry."

"I notice that in this range you have some nicely-coloured Crotons, and a fine show of Begonia Gloire de Lorraine. What is your system as to the latter?"

"We find that more flowers and foliage can be got when the plants are grown from cuttings than when they are grown from the leaf. The most essential thing with Gloire de Lorraine is to maintain plenty of moisture. It suits them, and keeps away the mite, which we call 'thrip.' This is a very minute pest, but 'thrips' turn the foliage brown. This year we have had these Begonias thirty inches across. In the Pine range we also grow Coleus thyrosoideus, a new species of a peculiar blue colour, which flowers about Christmas, and the old variety of Hippeastrum aulica. It is one of the best for flowering early, from early October onwards. In the forcing house there are several garden hybrids throwing up spikes. We have flowers from now until the end of May. They mix well with the Arum Lilies, either in pots or when cut. Most of them are scarlet, and there are a few striped ones. We grow about two hundred pots."

"Primulas are a feature at Bicton, I believe?"

"Yes, we find them most useful for winter, and always have a quantity of the double variety, alba plena, in the show house."

"Is the double Primula difficult to grow well?"

"It is not easy. Early in March, after the plants have flowered, we trim off all the bottom leaves near the pot, and mould them up with finely-sifted leaf-soil and sand. This causes the young offshoots to root into the compost, and about two months later they are divided with a sharp knife, each little growth having a nice lot of fibrous roots attached. We pot them singly, in 3-in. pots of light, sandy soil, and keep close for two or three weeks, and afterwards treat them similarly to seedlings. They are potted on, when fit, into 5-in. or 5½-in. pots, which are quite large enough to grow them well, and, indeed, answer the purpose better than 7½-in. pots. Great care should be taken not to water the plants in the centre during the winter; water should be kept away from the foliage."

"How many doubles do you grow?"

"About a hundred and fifty. We also have a number of singles, which look very well, so long as they are not shifted about often, but they are not nearly so useful as doubles for cutting. Good culture is the secret of success in the cultivation of the Primula, but they well repay the labour which is required. From November until April we have them in bloom."

"I should like to have the names of some other of the principal plants in the show house."

"There are the Salvias. Azurea grandiflora, the blue variety, is hardy. A little frost will kill splendens in the open, but the blue variety resists it. We have other varieties, such as Rutilans, Heeri, Gesneræflora, all scarlet, notably Rutilans, with scented foliage. Trumpet Lilies are also grown in quantity. We grow them only in pots, because by this method we get flowers earlier than if we planted them out. They flower from November to May, but we are satisfied if we get a good show at Christmas."

"Do you pot, or plant out, Bouvardias?"

"We grow them in pots only. The finest scarlet Bouvardia is President Cleveland, and Vreelandii is a good white. Priory Beauty (pale and satin-rose), Alfred Neuner (double white), and President Garfield (double pink), are among the best. Purity is a beautiful white single, very free and very fragrant. I propagate these from root-cuttings in preference to sideshoots."

"Have you many Carnations?"

"No, we have no special house for them, and we find that they do not mix well with other plants in the lofty greenhouse. The violet-flowered Browallia speciosa major adds a charming belt of colour in the autumn, but requires an intermediate temperature to do it well. We can get them from seed, but I like the cuttings best, and grow them accordingly."

"You have some Cypripedium insigne throwing up their flowers?"

"Yes, we have about sixty pots, and find them most useful for cutting. They remain good a long time in water. The other Orchids include a few Odontoglossums and Masdevallias, but we have no special house for them. The centre of this greenhouse is filled with Azaleas, old Single White, and Deutsche Perle. The former flowers in the spring, and the latter, with a little warmth, in November. The Deutsche Perle is one of the most useful Azaleas grown. We grow a good many Poinsettias."

"What is your treatment of them?"

"They are put in cold frames during the summer. In fact, we do not bring them inside until October. Finer bracts are had from plants rooted in early summer than from cut-backs."

"Your Palm house is a very lofty structure?"

"Not too lofty for some of the Palms. We have been obliged to cut several down. The varieties are chiefly Seaforthia, and Areca Bauerii; a very fine old Cactus runs nearly to the top of the roof. The back wall is covered with Hibiscus, in two or three varieties."

"Which do you recommend?"

"The best is Lambertii, a very fine double variety, and Sulphurea plena, an orange double, is almost equally good. The Citron tree, at one end of the Palm house, flowers and fruits freely, and the Guava a little."

Passing through a small house devoted chiefly to Adiantums for cutting purposes, with a few Cypripediums—Harrisianum, Boxalli, and Gedenii—on the back shelf, we came to the early Peach house."

"The best early Peaches and Nectarines," said Mr. Mayne, "are Hale's Early, Gros Mignonne, Lord Napier, and Early Rivers. In the early Vinery we have Black Hamburghs. These used to be grown exclusively at Bicton out of doors, some forty years ago, but the Vines in this house are comparatively young. I planted them myself. We begin to cut Grapes about the middle of May. Other varieties grown in the different Vineries are Lady Downes and Black Alicante, both fine in bunch and berry, and of excellent colour."

Entering the cool house, which is known as The Temple, facing the flower garden, my attention was at once attracted by some fine specimens of Japanese Chrysanthemums, and I asked Mr. Mayne if he exhibited.

"No, there is no exhibiting done from Bicton, though we help a show or two, privately. The Chrysanthemums are grown for decoration, and include the best Japanese and Incurved varieties. This year we find that they have decayed from excessive moisture, owing to the absence of sun and much rain."

"I see that Gardenias are grown in the stove house?"

"Some are here, and others are in the Vinery, resting. They flower better when they rest. In this house, as you see, there is a batch of Dendrobium nobile. These and Calanthes are, in my judgment, far the best for cutting purposes in winter. Other plants are Nepenthes, and a few Begonias in baskets, while covering the roof are Allamandas, Clerodendrons, Gloriosa superba, and Rondoleta speciosa major, a bright orange flower, most useful in winter, while underneath are Crotons, Dracænas, Pandanus Veitchii, Erathemums, Plumbagos, Centrapogons, etc., which all add a brightness at this time of year."

"What do you consider the features of the flower garden?"

"The Magnolia grandiflora, which covers the walls, is always regarded as one of our features. Standards are grown from the grandiflora. Bicton is famous for the number of plants grown in the open. For instance, Rhyncospermum, quite a greenhouse plant, always thrives here in the open. Sweet-scented Verbenas and Aloysia citriodora are quite hardy against the wall. Cassia corymbosa, as you notice, is still in flower outside. Acacia dealbata is quite hardy and flowers well. Myrtles have never flowered more freely than this year. In front of the glasshouses, Amaryllis Belladonna plants flower freely in September and Octob
are most useful for church decoration
thanksgivings."

"You have a quantity of Bamboos?

"They grow like weeds here, an
some fifty varieties. Bicton, too, is not
Conifers. In the Arboretum, some
from here, which is a mile and a-half
there is a grand collection of va
Pinus, Cedars, Abies, Thuja, and
etc., etc., as well as deciduous trees
rare."

"I observe that you are just prep
winter bedding."

"We do a lot of bedding out in t
This season the bedding will includ
Wallflowers, Myosotis, Polyanthus,
Silenes, and Alyssums."

Adjoining Bicton House is a large
with trees planted out in beds.

"The fruit," continued Mr. Mayne,
come to perfection, but the flowers are
in the spring. One of the most beauti
in the Orangery is the Streptosolen J
with its large orange flowers. The f
of Luceilia Pinceana (twelve feet high
through), just opening its flowers, whi
until Christmas, is also noteworthy, a
the Lapageria (red and white) on the
the Bougainvilleas Sanderii and glabra

On the other side of the mansion
kitchen gardens, two and a-half acres i
admirably situated, with high brick
round, and two acres outside. It
cropped, and very clean—so clean tha
mented on the fact that, in spite of
weather, I could not see any weeds.

"Bicton has rather a reputation fo
liness," rejoined Mr. Mayne.

"And for fruit, I think. How have t
been this year?"

"We had good crops of Peaches and
and Apples have done well. But Pe
been scarce. We grow both Apples and
goblet-shaped iron trellis, and we find t
crop fairly well. This system has alw
in force here. Strawberries are grown
quantities. Royal Sovereign leads the w
for outdoor work and for forcing. We h
President and Leader, and I am tryin
other varieties."

"You might give me the names o
varieties of Apricots?"

"The best half-dozen, though they
ject to canker a little, are Moor Park,
Peche, Shipley, Hemskirk, St. Ambroi
Royal."

"Do you care to say anything abou
tables?"

"All the best varieties are grown. Th
soil suits such crops as Carrots, Parsnips
and Celery, specially. Some seasons we
Peas right up to the middle of November.

"What do you grow in the two lon
heated houses?"

"Peaches on the roof, and sweet Cher
the back wall, which are trained down t
the Peaches. Figs (Brown Turkey) ar
grown in the open."

"And in the pits?"

"Mainly Violets. There are twenty ligh
double varieties are Mrs. J. J. Astor
flowers the best), Marie Louise, De Parma,
de Brazza, and Lady Hume Campbell
singles, the two best are La France and P
of Wales."

At the back of the kitchen garden is a sl
which were planted, about six years ago,
lot of bush and pyramid Apple trees.
these crop well I was able to judge whe
went into the fruit-room, where shelves wer
stocked with good samples of Peasgood's
such, Warner's King, Lane's Prince
Bramley's Seedling, Newton's Wonder,
ringham, Beauty of Kent, Baumann's
Reinette, Lord Derby, King of Ton
County, Wyken Pippin, King of Pippins,
mas Pippin, and Adams' Pearmain,
many others. Pears were getting scarce
excellent samples of two late varieties,
Morceau and Passe Crassane, were o

shelves. These, Mr. Mayne informed me, suit the Bicton soil, which is a sandy loam, resting on the old red sandstone.

When we had walked down the most magnificent avenue of Araucarias in the kingdom, with twenty-five trees on either side, which were planted half a century ago, and I had seen the comfortable new botny which has just been opened, I inquired the number of men employed in the gardens.

"Seventeen," said Mr. Mayne, four of whom live in the bothy. The rest of the staff reside in the village. There are two foremen."

"How long have you been at Bicton yourself?"

"Since April, 1891. I am a native of Devonshire, and started my short career in the nurseries of Messrs. Lucombe, Pince and Co., of Exeter, which at that time was renowned for its collection of ornamental and other trees. There I applied myself for a time to the art of budding, grafting, and other outdoor work. Then I went into the glass department, under Mr. George Cole, who was well-known as a successful plantsman and exhibitor. My next appointment was as under gardener at Membland, near Plymouth, and two and a-half years later I went as journeyman to Garnstone Castle, Herefordshire. At the end of eighteen months I became foreman, and, after staying at Garstone for three years, obtained an appointment as foreman at Broadlands, Romsey, Hampshire, where fruit, especially Peaches, was largely grown."

"Where did you first become head gardener?"

"At Pentillie Castle, St. Merion, East Cornwall, but I soon removed from that position, to take charge of the gardens at Stowford Lodge, Ivybridge. I stayed there for five years and a-half, until I came here. Although no exhibiting is done at Bicton, the work is augmented by the opening of the gardens and grounds on Tuesdays and Fridays, from April to October. The admission is by ticket, and either I or one of my men conduct the visitors round the place. I find time, however, to write pretty frequently for the gardening Press, and help the Exeter Gardener's Mutual Improvement Society by contributing essays, and often judge at Exeter, Plymouth, and other local exhibitions in East and South Devon."

ALFRED WILCOX.

## LETTERS FROM A LADY GARDENER.

### No. 69.—FORCED FLOWERS FOR CHRISTMAS.

DEAR KATE,—We have been potting up a lot of Lily of the Valley crowns, some very fine ones, from a first-rate source, and some of a more old-fashioned kind from the garden. What with "retarded" and forced crowns, it is not difficult to have Lilies of the Valley all the year round, now; but I think one might even get tired of these delicious flowers in time, and we find that a good succession of them, from January till their natural flowering season (May), is enough.

There are two or three special wrinkles which I can give you in forcing these flowers, which make it quite easy for an amateur, especially a lady (who does not care to make up a hotbed for them), as only a few are wanted at once. We have some boxes, about eighteen inches deep, and broad enough to fit right on to the hot-water pipes in the Vinery, which we find make excellent forcing-boxes. The bottom should be knocked out, and a piece of small-meshed wire netting nailed over it, and we fill our boxes with moss, which has been dipped into boiling water to destroy all the germs of insects, slugs, etc., which infest it otherwise. One year we tried cocoanut fibre instead of moss, but did not find it nearly so good, because mildew appeared in it, under the pots, whilst moss never mildews, and makes a fine, moist bed of warmth, in which we plunge the pots of crowns (twelve of these are potted in a 6-in. pot, evenly over the surface), taking care to keep the moss under the pots very damp, by soaking it morning and evening, for fear the roots in the pots should become dry. They come into bloom three weeks after forcing begins, but Lily of the Valley crowns should be potted up as soon as procured (for they must never be allowed to get dry, or they will be seriously injured). The pots can be plunged in ashes to the rim, out of doors, and a little frost will do the crowns good rather than harm, as the cold rests them thoroughly, and they come much stronger for it. With a good store of potted crowns, it is easy to bring in two or three at a time, and plunge them in the hot moss, covering them over with it at first, and gradually raising the pots out of it as soon as the buds begin to show. Now comes a critical time, for the slightest check from dryness or a cold draught, or even from cold water instead of warm (which must always be used for plants which are in a forcing-box or hotbed), will make all the little white buds turn brown and shrivel away, instead of opening, so that great care must be taken to keep them fairly warm and moist until the bells are really open, after which they will stand in the drawing-room (without gas though, please), if carefully hardened off for a day or two. Even a cold wind, encountered in being brought from the hothouse to the room, will chill them to death, if not open, and it is always very dangerous to buy a pot of

LILIES OF THE VALLEY.

Lilies which have been hawked about the street in an east wind, as the buds are very likely to shrivel, instead of opening. The pots should be covered with fresh moss, and kept quite moist, placing them out of the way of dry heat or cold draughts at night, in a greenhouse; or in a box, with an inch or two of moist ashes at the bottom, covered with a piece of glass, which makes an admirable night-refuge for plants which object to gas, and also to an icy blast blowing through the room when it is being swept in the morning. Lilies of the Valley make no fresh roots whilst flowering, so that any fine soil or sand which can be shaken down amongst the long, fibrous roots, will do for potting them, and they need but little drainage. After they have blossomed, we plant out the crowns in a rich bed of soil in the garden, each singly, and six inches from the next, in rows a foot apart, and in two or three years these make good flowering crowns again. Every year we dig up as many of our home-grown crowns as we want from a row which has been planted at least three years, sorting out the thin spikes from the stouter ones (as these only contain blooms), and replanting the leaf-crowns in the same way as the forced ones. In this way we have plenty of Lilies in the garden in May, and also supply ourselves with an abundance of crowns for forcing, raising them each year from the next row.

Freesias, too, are easily home-grown. Our earliest batch, potted in July, are now showing buds, and we have several later batches to come on, ending with a few pots which are kept in the cold glass porch, and only bloom in April. The great thing is to ripen the corms well, in a hot, sunny place, close under the glass of a greenhouse, in June and July, and then to pot them up at once, picking out the largest corms for early work. They should have a compost of good loam and leaf-mould, soot and sand, placing the corms two inches below the top of the pot, so as to have plenty of room for the repeated top-dressings which they need, as they grow, moulding them up at the same time to keep the foliage straight, for it looks wretched when tumbling about. We use the thin, neat, little stakes, cut from the dried stalks of Michaelmas Daisies, for Freesias; they only need three or four, with a little raffia tied between them (even when brought on early), for the foliage is robust and short. After potting them in July and August, we place the pots (quite uncovered) in the full sunshine, and water them only when the soil is dry; the summer's sunshine does the forcing in this way, and the "grass" quickly starts; then we top-dress it, and give more water. At the beginning of October we take the pots in, and stand them on a shelf close under the glass, giving tepid water in plenty, when they bloom in December, in plenty of time for Christmas—and a pot of Freesias in full bloom makes a charming Christmas present, I can tell you, for the flowers are as fragrant as a bouquet of Cowslips and Violets mixed.

The corms increase and multiply year by year, when treated well, but be sure not to hurry them off by keeping them too dry after flowering. Keep the foliage green as long as possible, so that the bulbs can grow big; then put the pots up under the glass roof again, to bake, for about six weeks, for without this they will not blossom. They come from the South African veldt, and we have to imitate the climate there to succeed in growing them.

The bed of Lilies of the Valley (out of doors), I forgot to tell you, should be slightly mulched with old hotbed material every year, in February, giving another sprinkling of rich soil over the roots in June, just after the flowers are over, and keeping the bed free from weeds. Old beds become too full of roots to do well, unless they are taken up and replanted every few years, as I have recommended above; a good plan with a thick mass of crowns is to take out each alternate foot of space, filling it in with rich soil, and replanting the crowns taken up in a fresh bed; the new soil will be filled with strong, young crowns in about two years, when the thick masses between them can be taken up and replanted. In this way some blossoms can be secured every year, which is not the case if the whole bed of Lilies is removed at once to fresh quarters. In replanting the crowns, remember that a bed of Lilies in a shady spot will bloom much later than the rest, thus prolonging the season of these favourite flowers, and make beds of them both in the sunshine and in the shade.

Your friend,

I.L.R.

FOR some years a Potato, semi-aquatic, and originally grown in Uruguay, has been cultivated in the neighbourhood of Marseilles. M. Heckel, director of the Colonial Institute of that city, has made a report to the French Minister of Agriculture, in which he says that the growing of the Potato in question, which he calls the "Commersion," is a most promising industry. It defies frost, and has eatable foliage, the cutting of which does not diminish the number of tubers. Moreover, the "Commersion" is subject to no Potato disease.

## Malcolm M'Coig.

By the 1st January 1782 a new Principal Gardener had been appointed in the person of Malcolm M'Coig, and he continued in this position until his death on the 25th February 1789. He therefore survived Professor Hope, who died in 1787, and he was Principal Gardener when Professor Rutherford became Regius Keeper. Regarding M'Coig we have no further information as yet, but that he was a man of some vigour, and of better education than John Williamson, is shown by papers among our Hope MSS. assigned to his authorship by Professor Hope, in which he makes proposals for various changes in the laying-out of the Garden.

JOHN F. MCELROY.—The death of Mr. John F. McElroy, gardener to A. J. Lewis, Esq., Moray Lodge, Camden Hill, Kensington, and for the last eight years the Hon. Secretary of the United Horticultural Benefit and Provident Society, took place on Sunday last, after a short illness, in the sixty-ninth year of his age. He was a gardener from childhood. His father was gardener to Mr. Christie, and the son of his employer, William Miller Christie, took a great interest in botanical studies, and young McElroy was his companion, and in the course of rambles gained a good knowledge of botany, which often served him in good stead in after years. At the age of seventeen he went as assistant, and afterwards as salesman, to a Mr. William Thompson, a market gardener at Haywards Heath. On leaving Mr. Thompson he went as flower gardener to Mr. Weeber, at Stamford Hill; then to Mr. Renshaw, at Erith, but there his health failed him, and he had to leave, and then he went into the employ of Mr. Lancaster, Stamford Hill, laying out his grounds and getting them into working order at the commencement of his service. Here he remained for nineteen years, leaving Stamford Hill on the occasion of the death of his employer, and entering the service of Mr. A. J. Lewis, at Moray Lodge. Here he lived for twenty years, keeping up the garden in excellent style, and working out many improvements. He was seized with a fit on Friday the 7th inst., and died on Sunday the 9th in full possession of his faculties to the last. In years past he contributed a good deal to the columns of the gardening papers, and especially to the *Gardeners' Magazine*. He took a deep interest in all social questions affecting the working classes, and especially in the Temperance movement, lecturing, and speaking frequently at meetings. The services he rendered to the United Horticultural Benefit and Provident Society were most disinterested, for when he became its Secretary he was too old to avail himself of its privileges as a member, and all the remuneration he received for his services was the small amount remaining as a balance from the Management Fund at the end of the year. He was a most painstaking official, and his books are to be found in perfect order. It will be extremely difficult to find a better worker and administrator than J. F. McElroy. He had been a subscriber to the Gardeners' Royal Benevolent Institution since 1869. He was buried in Brompton Cemetery on Wednesday last.

on fruit culture, packing, and export, as practised in America, France, and the Channel Islands. *The Fruit Garden* is published at the office of *Country Life*, 20, Tavistock Street, Covent Garden.

**AN INTERESTING EXPERIMENT.**—We learn that the Gold Medal collection of hardy fruits exhibited by GEORGE BUNYARD & Co. at the recent Chiswick Show, has been sold to the Cold Storage Stores, Limited, Tottenham, who intend experimenting on it, with a view of reproducing it in good condition at a Spring Show in the Metropolis. Their works are at Tottenham.

**VICTORIA REGIA.**—Mr. F. W. MOORE, Royal Botanic Gardens, Glasnevin, Dublin, writes:—"On the evening of Monday 18th ult., two large and fully developed flower buds on the plant of Victoria regia in this garden opened simultaneously, and remained open during the night and also during the following day; they withered simultaneously on the forenoon of September 30. One leaf only was developed with these buds, which were on opposite sides of the plant. This is a unique experience in my cultivation of this glorious aquatic, extending now over many years. I have previously only seen one flower open, although a strong bud has frequently been above the water while it was in flower, but this bud would not open for two days after the open flower had withered. Cultivators of the Victoria will also know that with each flower a new leaf appears, these young leaves having frequently to be cut out to prevent overcrowding. These twin flowers developed together, appeared together, opened together, and withered together. I may add that the plant this season has been a very vigorous and free-flowering specimen. It would be interesting to know if any of your readers have had a similar experience."

**PORTRAITS OF BOTANISTS.**—Dr. WITTROCK, of Stockholm, has prepared a catalogue of the extensive collection of portraits of botanists contained in the library of the Botanic Garden, Stockholm. Of many of them reproductions are given. Brief biographical details are also supplied, so that the publication is one of much interest to botanists. The text is in Swedish, but Latin summaries are added for the benefit of those not conversant with the Scandinavian tongue.

**THE SURVEYORS' INSTITUTION.**—The first ordinary General Meeting of the Session 1903—1904 will be held on Monday, November 9, 1903, when the President, Mr. ALBERT BUCK, will deliver an opening address. The Chair will be taken at 8 o'clock.

—— THE INSTITUTION LIBRARY is open from 10 A.M. to 5.30 P.M. every weekday except Saturday, when it is open from 10 A.M. to 2 P.M. The attention of the members is specially called to the fact that the rooms of the Institution are open daily, and are available for reference to the library, for arbitrations, writing, appointments, or other business purposes.

**BEGONIAS, SINGLE AND DOUBLE.**—Messrs. T. S. WARE, of the Begonia Nurseries, Bexley Heath, Kent, sent us lately a large box containing an assortment of some of the finest Begonias we have seen. They were cut from the open ground, and although slightly damaged by rain were yet remarkable for size, symmetry, substance, and variety of colour.

**"HARDY PERENNIALS."**—This is No. 9 of a series of rural handbooks published by DAWBARN & WARD, of Farringdon Avenue, and edited by Mr. H. S. WARD. The author of *Hardy Perennials* is Mr. D. S. FISH, of the Royal Botanic Garden, Edinburgh, son of our well-known contributor and correspondent, the late D. T. FISH. In a small space we have useful cultural directions, and an alphabetical list of the most valuable perennials, and many hints concerning their seasons of bloom, arrangement, &c. A few illustrations are included. We recommend the pamphlet to all needing a handy guide of this nature.

**UNIVERSITY OF LONDON.**—COURSE OF LECTURES ON ADVANCED BOTANY. — During the first term of the Session 1903–4 a course of eight lectures on "The Relation of the Composition of the Plant to the Soil in which it Grows" will be given by A. D. HALL, M.A., Director of the Rothamsted Experimental Station, at the Chelsea Physic Garden. The Lectures will be given on Tuesdays, at 3 P.M. The syllabus will be as follows:—

LECTURE I., October 13.

*The Practical Problem.*—Differences in value of various plants dependent upon their variation in quality and due to the soil in which they were grown.

*The Scientific Problem*—The study of the various factors affecting nutrition so as to obtain light upon the ultimate chemical reactions by which plant synthesis takes place.

General ideas upon the composition of the plant and the course of nutrition. Functions of the soil in nutrition. Variable factors in the action of the soil-water supply, chemical composition, temperature. Interaction of these factors.

LECTURE II., October 20.

The stages in the development of a plant, assimilation and the accumulation of reserve material, its migration and maturation. The requirements of a plant as regards water. Effects of deficiency or excess of water at different stages. The texture of the soil as affecting the supply of water to the plant. Variation in the composition of the plant dependent upon heavy and light soils.

LECTURE III., October 27.

The ash constituents of plants. Their functions in the nutrition of the plant, effects due to their deficiency or excess. Amounts of ash constituents taken up by the various crops as compared with the amounts present in the soil. Selective action of plants. Theories of manuring based upon the composition of the ash. Law of the minimum.

LECTURE IV., November 3.

The analysis of the ash of a plant to obtain information as to the manurial requirements of the soil on which the plant was grown. Amount of variation to be found in the composition of the ash of plants. Comparison of ash analysis with soil analysis. Selection of test plants for analysis.

LECTURE V., November 17.

*The Wheat Crop.*—Stages in the growth of Wheat—cessation of nutrition, continuance of assimilation, the migration of the accumulated material to the grain. Quality of Wheat as affected by soil and climate. Characteristics of English and the various foreign Wheats. Relative stability of the composition of grain as compared with that of the whole plant. Variations in composition of Rothamsted Wheats dure to manuring and season. Conditions upon which the quality of strength in Wheat depends.

LECTURE VI., November 24.

*The Barley crop.*—The difference in the elements constituting high quality in Barley and Wheat. Difference in the habit of growth of the two plants. Relation of these factors to the soils and manuring most suitable for Wheat and Barley respectively.

Composition of root-crops grown at Rothamsted. Effects of soil and manure on the quality of the crop and its maturation.

LECTURE VII, December 1.

Adaptation of flora to soil conditions. Effect of long-continued differences in manurial treatment on the character of the herbage of the Rothamsted grass plots. Effects of nitrogen, potash, and lime on the relative dominance of gramineous or leguminous plants. Secondary effects on particular species due to the depth to which the manures enter the soil. Application of Rothamsted results to the interpretation of the composition of the herbage of other soils.

LECTURE VIII., December 8.

Intolerance of particular soil conditions exhibited by certain plants. Flora of acid soils. Causes of soil acidity. Reaction of the plant on the soil, maintaining a neutral condition. Calcifuge and calcareous plants. Effects of injurious constituents in the soil in inducing xerophytic structure. Alkali soils and their flora. Causes of the association of particular crops with certain types of soil.

**A DISEASE IN PLUMS.**—Dr. ERWIN SMITH describes in *Science*, vol. xvii., No. 429, March 20 1903, a disease in Japanese Plums, which shows itself first in the form of spots on the leaves, which become "shot holes." The spots on the fruits become deep cracks, which spoil the Plums. This disease is said to be due to a yellow Bacterium (Pseudomonas pruni), which enters the plant through the stomata.

## RETIREMENT OF MR. McINDOE.

IN consequence of the death of Sir Joseph Pease, Bart., and the sale of the Hutton Hall estate, Mr. McIndoe, the well-known gardener, is shortly retiring from active service there. For nearly thirty years he has occupied the most prominent place in the field of not only Yorkshire but North of England horticulture. The writer of these notes has had the pleasure of his acquaintance during the whole of the time stated, and he has felt that some notice of his career should be recorded in the pages of the *Gardeners' Chronicle*. His remarks will be fairly brief, first, for fear that the exigencies of your space may compel the free use of the editorial scissors; and, secondly, one could not get the full details of the life of Mr. McIndoe without a close interview, which I feel sure would not be cared for either by the writer or by Mr. McIndoe. As his name shows, he is a native of Scotland, and was born in 1836, his native county being Renfrewshire. His father was a market gardener, and as a boy he entered early into what was to be his life's work. His first place on leaving home was in the gardens of Sir John Maxwell of Pollok, the head gardener at that time being a Mr. Campbell. Thence he went to Archerfield, under Mr. Young. These gardens were at that time, and for many years afterwards, when managed by Mr. David Thompson, considered to be amongst the best in Scotland. The young aspirant to horticultural fame was only about twelve months in his new place before he was made a foreman, being only twenty years of age at the time.

Later on we find him at Auckland Palace, Durham, as foreman at the age of twenty-one. Thence he went to Bishopthorpe Palace, and Addington Park, Croydon, both in the same position. As will be known to most readers of this journal, these three places were occupied by the then Bishop of Durham, the Archbishop of York, and the Archbishop of Canterbury respectively. In 1863 he was appointed gardener to Coles Child, Esq., Bromley Palace, Kent, which at that time was a place of note in the gardening world, seeing that some hundreds of applicants applied for it when then vacant. A few years afterwards Mr. McIndoe became gardener and farm bailiff to the then Archbishop of York at Bishopthorpe, near York, where he remained till the winter of 1874, when he removed to Hutton. It was here that the chief work of his life was to be done. At that time Mr. Joseph Pease was rebuilding the mansion, making new gardens and erecting a splendid lot of new glass-houses. The new gardener entered into the spirit of the whole affair with well-directed enthusiasm and, on the whole, very sound judgment. It was quite a treat to meet him at York Gala each year, and hear his vivid but guarded description of the new work done and being done under his management. Very shortly he began bringing object-lessons of his work and care for the judges to look upon and the public to admire. While in no sense wishing to unduly magnify Mr. McIndoe's doings as an exhibitor of fruit, this much may fairly be claimed—that no other gardener has for 25 consecutive years, at a first-class show, won so many prizes for fruit as he has done at York. To go further into his record in this respect would be simply to write a catalogue. This much may be added: Mr. McIndoe has often

told me that the time he felt most gratified as an exhibitor was in 1897 at Shrewsbury, when he was awarded 1st prize in the Victoria fruit class for sixty dishes of fruit illustrating the produce of British gardens. Besides the money prize given by the Shrewsbury Committee, the Gold Medal of the Worshipful Company of Fruiterers, London, and two other valuable medals were awarded to this exhibit. As is well known, he was one of the first sixty to whom the Royal Horticultural Society gave the Victoria Medal of Honour later on in the same year. But enough on this head. Mr. McIndoe found time to interest himself in the social and religious well-being of his neighbours at Hutton. For many years he acted as a churchwarden, and in other ways found an outlet for his judgment and ability. I think that as a body gardeners might fitly do more of this wherever their lot in life is cast.

Having had the misfortune to lose his wife some three years ago, Mr. McIndoe will make his future home with a married daughter at Dartford,

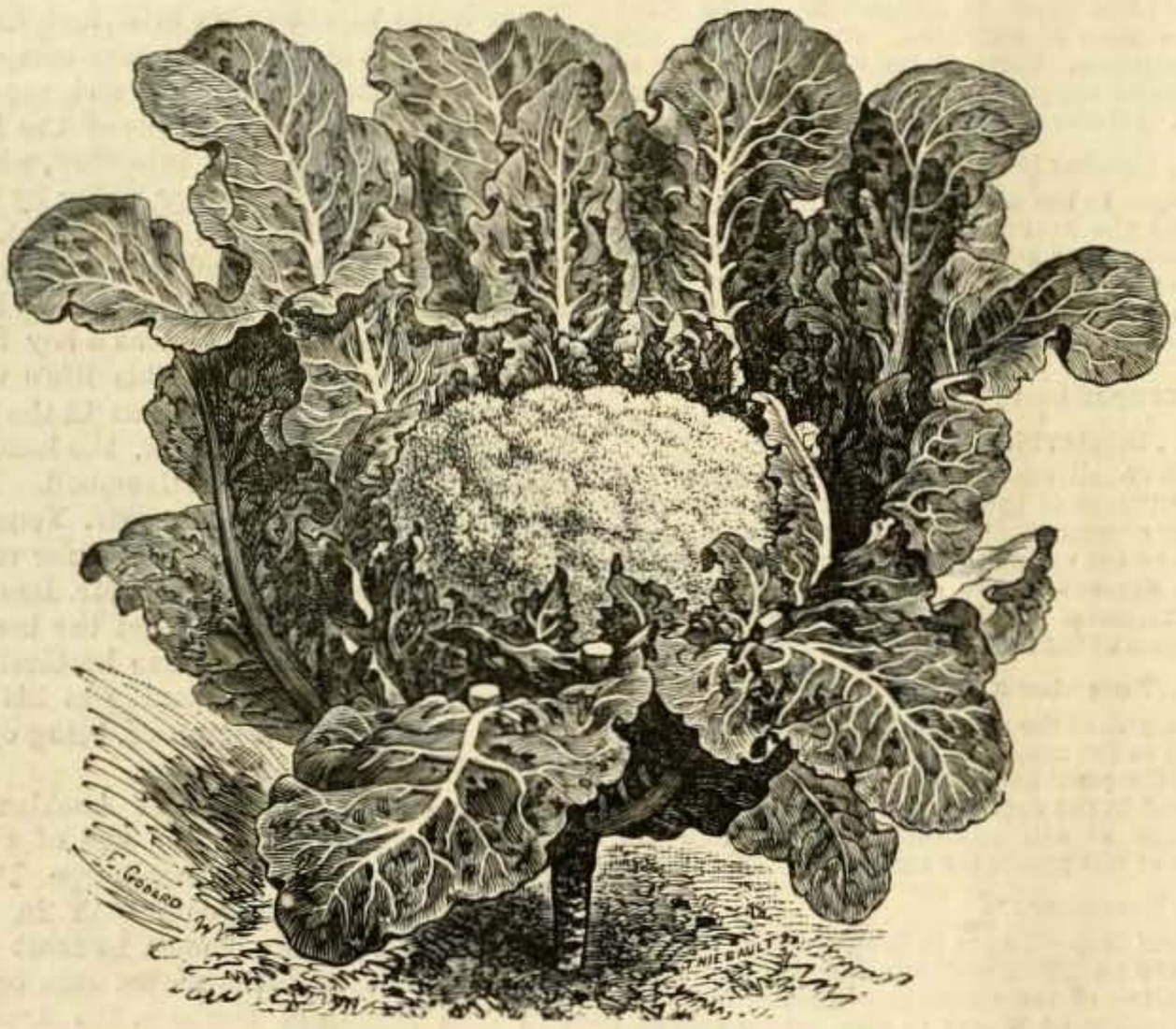


FIG. 108.—CAULIFLOWER INCOMPARABLE.

in Kent. He has been appointed to superintend the laying-out and planting a public park for that town. This, with his position as Consulting Horticulturist to the Metropolitan Asylums Board and other opportunities that will occur, will give full scope for his abilities. *Y. G.*

[A portrait of Mr. McIndoe was published in these pages, August 23, 1902. ED.]

## NEW PARISIAN VEGETABLES.

OWING to the courtesy of Messrs. Vilmorin, Andrieux & Co., we are enabled to give illustrations of some new varieties of vegetables that have lately been introduced by this renowned firm of French nurserymen, and which have special interest in connection with the recent Vegetable Show and Conference. The illustrations are the copyright of Messrs. Vilmorin et Cie.

CAULIFLOWER INCOMPARABLE,

though resembling Autumn Giant, is said to be earlier. The heads are of large size, good form, white, and compact. It is recommended as an excellent variety for market purposes (fig. 108).

"GLOBE ARTICHOKE PERPETUAL"

is so named because the variety, when afforded water as often as necessity arises, is said to afford heads nearly all the year round in the South of France, where Artichokes are grown extensively. In any district the heads would be fit for cutting unusually early, and if taken young are described as delicious when eaten with oil and vinegar, the scales being so crisp and fleshy (fig. 109).

THREE-PODDED PEA.

This variety resembles in size and earliness a well-known French Pea, Clamart, largely grown around Paris for canning purposes; the pod, however, is more curved, fills well, and is generally produced in trebles. A good Pea for market gardeners or owners of large private gardens (fig. 110).

*(To be continued.)*

## HOME CORRESPONDENCE.

**HUMEA ELEGANS AND PEACH-TREES.**—After reading the remarks by Mr. Smith, p. 228, on the above subject, it will be necessary for me to explain my experience with the Humeas more fully. The time of year when the Humeas were placed in the Peach-house would be some time early in May or thereabouts, when the trees would be making young growth and receiving early forcing treatment, which means a close and humid atmosphere. The Humeas would also be in exuberant growth, as they were placed there with a view to increase their growth, preparatory to their being planted out by the first or second week in June to form a back row for a long ribbon-border. I can now recall to my memory that whilst placing the Humeas in the Peach-house I had some misgivings as to the wisdom of putting so many of those strong-smelling plants in a house at so tender an age of the Peach-tree leafage. As already explained, my fears were well grounded; we had to shift the plants quickly. Mr. Smith in his note states that their Humeas were in the Peach-house "all summer," with very probably ripened leafage, and, we will also surmise, abundance of top and bottom air, which of course would completely alter the conditions and account for the healthy leafage of their trees. Mr. Smith will perhaps kindly also further explain. *W. Miller.*

—— I have read with considerable interest the several articles which have recently appeared in these pages on the above subject, and having had similar experience to Mr. Fyfe, these few lines may not be without interest. We had a batch of about thirty-six Humeas in 9-inch pots, and being short of room I had them arranged under the trees on

FIG. 109.—GLOBE ARTICHOKE PERPETUAL.

the front trellis in our second early Peach-house towards the end of April. Shortly afterwards the trees on the front trellis got scorched—Walburton Admirable and Stirling Castle Peaches slightly; but the middle tree, a Violette Hative Nectarine, badly; while the trees on the back wall entirely escaped. Thinking perhaps that the trees required water, an examination of the border was

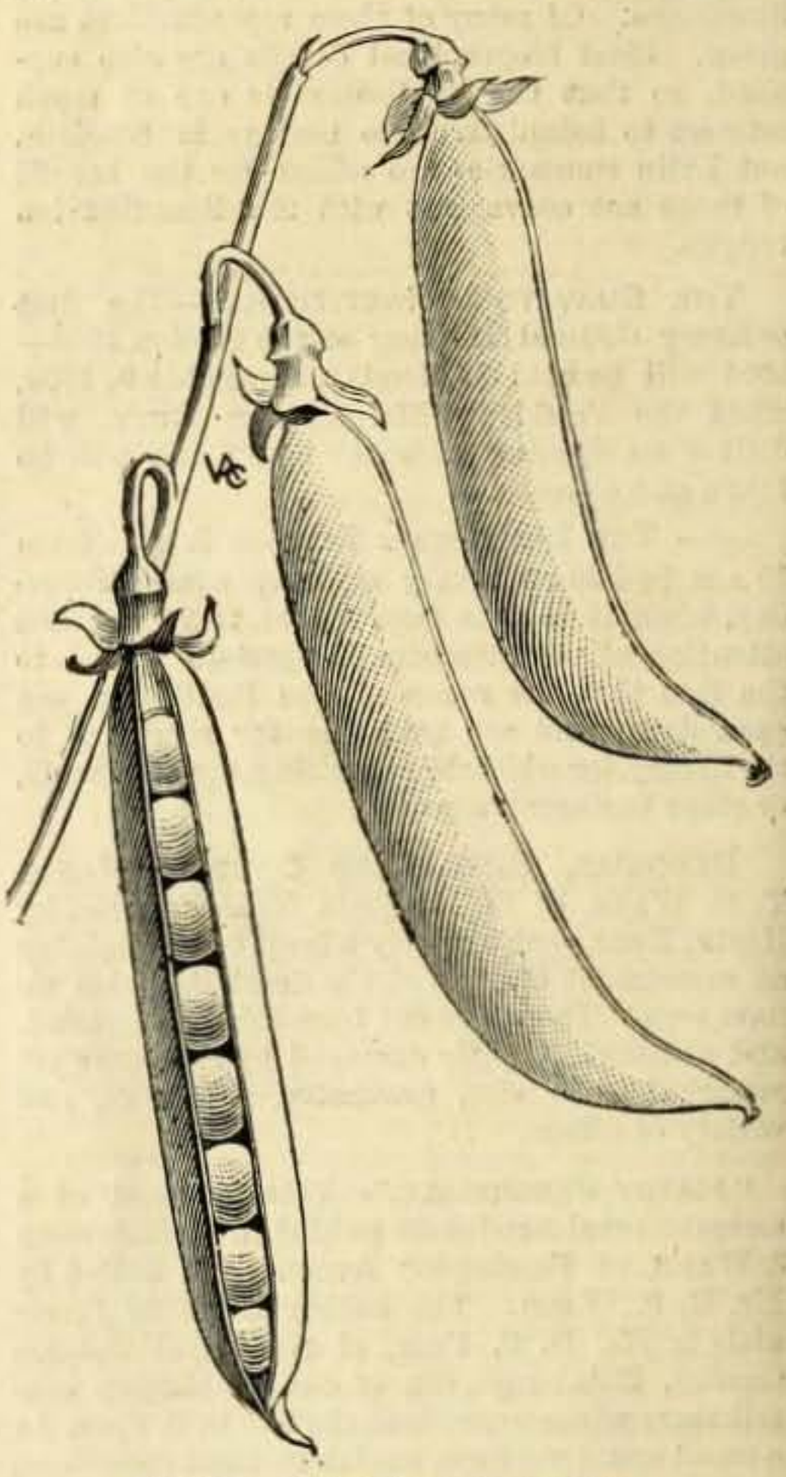
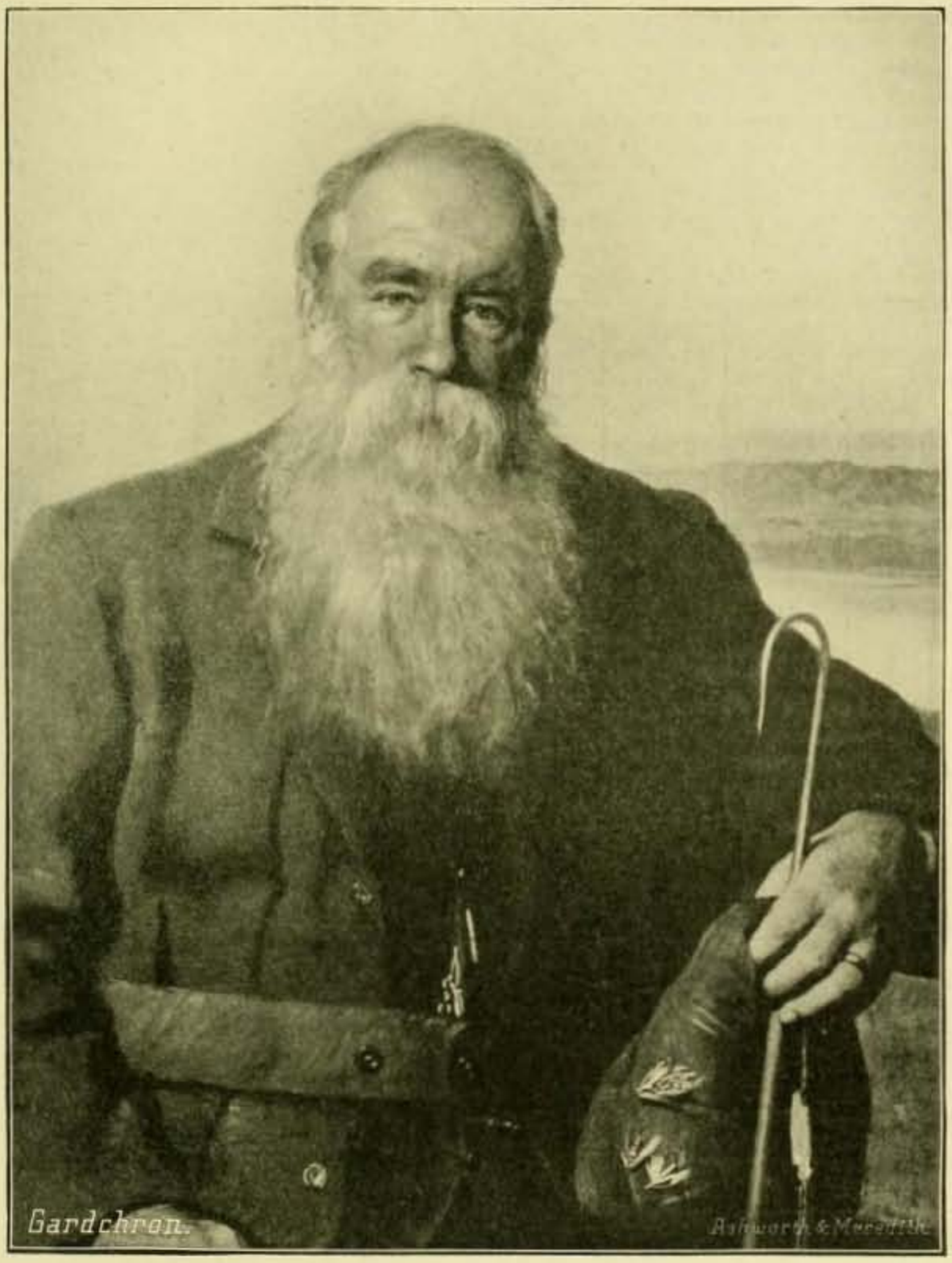


FIG. 110.—TALL THREE-PODDED PEA.

was for the members to bring it before the notice of the members of local horticultural societies. Mr. Mark Webster also spoke to the same effect, after which the report was adopted unanimously.

The retiring members of the committee, Messrs. Woods, Harding, Harrison Dick, and Wilson, were re-elected. On the motion of the Chairman, Mr. W. Collins was elected secretary for the ensuing year for the twenty-third time in succession. The treasurer, auditors, and trustees were also re-elected.

———The monthly committee meeting was held at the Royal Horticultural Hall, Vincent Square, Westminster, on Monday, March 14, Mr. C. H. Curtis in the chair. Six new members were elected, making a total of 32 for the past three meetings. Several members over 60 years of age took advantage of Rule 18 to draw the interest on their deposit account. A cheque for £11 14s. 4d. was drawn for the nominee of a late member. The amount paid to sick members since the last meeting was £60 5s. At a subsequent meeting, Mr. C. H. Curtis was elected chairman of committee and Mr. T. Winter vice-chairman for the ensuing year.




THE LATE MR. DREWETT O. DREWETT.

## Obituary.

**Drewett O. Drewett.**—We regret to record that the death of Mr. Drewett O. Drewett, of Willow Wood, Riding Mill, Northumberland, took place on Wednesday, March 9. The deceased gentleman, who was 72 years of age, was preparing to accompany Mrs. Drewett on a visit to friends, when he was taken ill in his dressing-room, and died shortly afterwards. Mr. Drewett had two hobbies—gardening and fishing. Particulars of his interesting gardens, with illustrations, have been given in these pages at various times during the past quarter of a century. He was a great lover of hardy herbaceous, Alpine, and aquatic plants, as well as ornamental trees and shrubs. Owing to the northern situation of his garden, it was a difficult matter sometimes to get certain species established, but he was generally successful, and especially in the case of Bamboos. Mr. Drewett resided at Riding Mill for the past 36 years and during the greater part of that time he interested himself in the hybridisation of Orchids. He was especially successful in the inter-crossing of the western world Cypripediums: one of his earliest successes was the raising of Cypripedium × Juno (C. callosum × C. Fairrieanum). During the last 10 years, Mr. Drewett devoted his attention principally to the inter-crossing of the winter-flowering Cypripediums, and his name will be associated with the introduction of C. insigne Aberdeen. He collected all the best varieties of C. insigne, and gave much attention to crossing them. Perhaps the finest variety he raised is C. i. James Renwick, which he named after his gardener, who ably assisted his late master in this work. The local Gardeners' Mutual Improvement Societies, especially that of Corbridge, will miss Mr. Drewett's advice and support. The portrait now reproduced is from a painting, and represents Mr. Drewett in fishing costume. *H. J. C.*

**James McIndoe, V.M.H.**—As these pages are passing through the press, a telegram has reached us announcing the death, on Wednesday, evening, of Mr. James McIndoe, late gardener at Hutton Hall, Guisboro, Yorkshire. Mr. McIndoe was appointed gardener at Hutton by the late Sir Joseph Peace, early in the 'seventies, and rapidly made a name for himself as a grower and exhibitor of choice fruits. Since his retirement from Hutton Hall, some years ago, Mr. McIndoe has resided at Dartford, in Kent, where he died after a long illness caused by cancer. A few years ago he visited New Zealand, and, on his return, contributed articles to the *Gardeners' Chronicle* on Grape-growing as practised there.

## LAW NOTES.

### FLOWER SHOW DISPUTE.

At the recent Chester Assizes, before Lord Coleridge, an exhibitor at the Gresford and District Rose Society's exhibition brought an action for damages for slander against a collier, also an exhibitor. The complainant asserted that the defendant had accused him of stealing Roses from his garden and exhibiting them as his own. The evidence revealed the fact that such illicit practices were quite common at the local exhibitions around Gresford, and the defendant said that he had on several occasions furnished the plaintiff with flowers for exhibiting, whilst plaintiff himself admitted in cross-examination that he had asked for things for other people, but not for himself. It was proved that one of the members of the committee had furnished plaintiff with Stocks for another show. This committeeman sat at the inquiry, instituted by the Gresford Show Committee, which exonerated plaintiff from the charge of corruptly exhibiting. The judge, in summing up, advised the jury to set aside the question of the committee of inquiry, remarking that they might as well have a number of poachers to try a poacher as accept the evidence of the committee.

The jury returned a verdict for the plaintiff with one farthing damages.

### NURSERYMAN'S FAILURE.

In regard to the failure of Mr. Thomas Albinus Thomsen, of Painter's Lane, Waltham Cross, nurseryman, the official receiver for the Essex district has issued particulars, from which it appears that the debtor has filed a statement of affairs showing gross liabilities amounting to £11,009 5s. 7d., of which £9,428 2s. 7d. is expected to rank against the estate for dividend. The assets are estimated to produce £18 17s., thus leaving a deficiency of £9,409 5s. 7d.

The debtor alleges his failure to have been caused through "Want of sufficient capital for rapidly extending business, and heavy interest of moneylenders."

## NITROGEN COMPOUNDS IN RAIN AND SNOW.

Since February, 1907, determinations have been made at the Ottawa Experimental Station by Professor F. T. Shutt, on the nitrogen compounds in each fall of rain and snow that furnished on the catchment area a sufficient quantity for analysis.

From the data so obtained and the precipitation results (rain and snow in inches), the author has been enabled to calculate approximately the amount of combined nitrogen furnished to the soil per acre in the vicinity of Ottawa, U.S. Another year's determinations are now reported, and in certain respects they are extremely interesting, as showing that practically twice as much nitrogen (chiefly as free ammonia) was found as in the rain and snow of the preceding year. This was traced to the smoke-laden atmosphere which prevailed during the autumn months in the neighbourhood of Ottawa, caused by the extensive bush fires which raged for many weeks, and which resulted in a large destruction of timber.

The first year's results in this investigation (March, 1907, to February, 1908, inclusive) showed that the total precipitation during that period was 24.05 inches of rain and 133 inches of snow, and furnished per acre 4.323 lbs. of fertilising value to the soil.

In the table that follows are given the data of the year ending February 28, 1909, and it will be noticed that in certain respects they differ markedly from those of the preceding year. The difference lies chiefly in the much larger amounts of nitrogen found in the rain, more especially in the months of September and October.

The monthly precipitations, the average

Renmark, in South Australia. The scientific application of water has converted dry wastes into orchards and vineyards, each a centre of considerable population, and annually adding largely to the prosperity of the community. Victoria and South Australia produced, in 1907-8, 13,800,000 lbs. of dried Raisins and Currants. The importance of the orchard industry in Australia may be gauged by the value of the production of fruits (other than Grapes) for the year 1907-8, when it reached the satisfactory figure of over a million sterling. Apples are the principal fresh fruit exported from the Commonwealth, the bulk coming from Tasmania. The export from that State to Europe last year numbered about 360,000 cases; this coming season we hope to send between 500,000 and 600,000 cases.

In the northern part of Australia where, at the present moment, settlement has been hardly commenced, we have a large area suitable for all kinds of tropical agriculture. The Chinese gardeners have already demonstrated this, for they have succeeded in growing the very finest Pineapples. The Pawpaw Apple grows luxuriantly all over the place, and Limes, Oranges, the Mango stem, Cocoanut, Banana, Passion fruit, and Mulberries flourish equally well. When this northern territory is developed and connected by rail with other parts of Australia, and when the magnificent harbour at Port Darwin is more generally used, the fruit production of Australia will attain dimensions which will far exceed the present fruit production of the whole Empire.

### United Kingdom.

No figures are obtainable as to the production of fruit in this country. In 1908 there were under fruit cultivation 172,751 acres of Apples, 9,604 acres Pears, 11,868 acres Cherries, 15,683 acres Plums, 28,815 acres Strawberries, 9,323 acres Raspberries, 26,241 acres Currants and Gooseberries, and 60,892 acres of other kinds. Of this acreage of 335,177, it appears that 27,433 acres of small fruits were grown in the large fruit orchards, leaving a net acreage of 307,744 under fruit cultivation. The industry in this country is growing, and the year 1908 shows an increase of 2,826 acres over the preceding 12 months. That it is capable of considerable extension in the United Kingdom is borne out by the fact that over 4,600,000 cwt. of fruit, valued at over £3,750,000, were imported into this country in 1908. These figures do not comprise the total imports of fruit, but only of those varieties which are grown also in the United Kingdom.

The fiscal policy of this country, together with the fact that the railways are privately owned, and therefore run on commercial lines, and, further, that cheap water carriage is available for the transport of fruit from the countries competing in the open markets here, offer no prospect of success to the growers of certain classes of fruit in this country, and, therefore, the increase in production is not likely to be at all great in the class of fruit suitable for long-distance transport by water. I am informed that Apples can be placed in London from countries thousands of miles away at a lower cost than they can be brought by rail from the fruit-growing districts of England to the great consuming and distributing centre at the heart of the Empire—the City of London.

## HOME CORRESPONDENCE.

*(The Editors do not hold themselves responsible for the opinions expressed by correspondents.)*

**The Late Mr. McIndoe.**—I was very sorry to read in your issue of last week the account of the death of one of my oldest horticultural friends and the serious illness of another. I allude to the late Mr. J. McIndoe and to Mr. William Denning. It was in 1873 I first met Mr. McIndoe, he being at that time gardener to the late Archbishop Thompson at Bishopthorpe, York. In 1874 he went to re-lay out and develop the gardens at Hutton Hall, Guisborough, for the late Sir Joseph Pease, where he remained for nearly 30 years and established his reputation as a grower and exhibitor of fruits generally. I sent you some notes of his gardening career about the time he left Hutton. My acquaintance with Mr. William Denning began in 1866. At that time he was sent by his then employer, the late Lord Bolton, Bolton Hall, Bedale, to look out a likely man from Messrs. J. Veitch & Sons' Chelsea Nursery, to act as gardener at Hackwood Park, in Hampshire. The present writer was chosen, and went on May 5. Two years afterwards Mr. Denning came to take charge of the gardens at Grimston Park, Tadcaster, for the late Lord Londesborough. His predecessor was the late Mr. John Richards, father of Mr. J. Richards, of XL-All fame. At that time Orchids in flower were sent regularly to the R.H.S. meetings at South Kensington in a specially-built van, which at that time, was regarded as an innovation. In 1872 the Grimston estate was sold to the late Mr. John Fielden, of Dobroyd Castle, Todmorden, who requested Mr. Denning to remain as his gardener, but as Mr. Denning was about to lay out an extensive new produce garden at Kingston for Lord Londesborough he declined the offer. He was then asked to name a likely man, and the present writer was engaged in October, 1872. Mr. Denning began his gardening career at Grimston about 1849 or 1850 under a Mr. Tester, his father at that time having charge of the woods and plantations, coming to Grimston from the Denbies, in Surrey, when the first Lord Londesborough in the late 'forties purchased the estate from Lord Howden. After gaining experience at Tortworth Court, Patshull, and other places, he went as gardener to Lord Bolton in the early 'sixties. *Henry J. Clayton*

**Bordeaux Mixture.**—Although the value of Bordeaux mixture was demonstrated in France as long ago as 1882 the readers of the *Gardeners' Chronicle* were put in possession of its value long before it came into general use in this country as a fungicide. For in the issue, April 4, 1891, p. 436, fig. 93, is shown its effect from a photograph from France on the Potato disease, the result of an experiment by M. Aimé Girard. *Charles B. Plowright, M.D., Sun Dial Cottage, North Wootton, March 18.*

**The Tallest Trees in the World.**—At p. 69 of the present volume of the *Gardeners' Chronicle* are some figures and facts concerning the reputed tallest trees in the world, collected by me from the most reliable authorities in Australia and America, where the tallest trees undoubtedly exist. According to the most trustworthy evidence there brought forward, America can claim possession of the tallest trees; but further researches have revealed the fact that there is still some uncertainty as to the species, though first position is generally accorded to the Big Tree or Mammoth Tree of California, Sequoia gigantea, otherwise S. Wellingtonia, the earliest combination under the adopted generic appellation. Relying on Professor Sargent, who states in his *North American Silva* that "this is the largest inhabitant of the American forests, though not the tallest tree in the world," I did not carry my investigations concerning American trees beyond this positive statement. It will be understood from the wording of the quotation, that at that date Sargent accepted the measurements of Australian Eucalypti, which, as I have shown, on the authority of Prof. A. J. Ewart, in the place cited, are quite unreliable and greatly exaggerated. Since I wrote the paragraph on p. 69 a most interesting and valuable paper, by Mr. E. H. Frothingham, of the United States Forest Service, on the Douglas Fir, has come under my notice. Respecting the dimensions of this tree the author says: The height-record is attained by the coast form of the Douglas Fir, whose height, as well as that of the Redwood, Sequoia sempervivens, reaches 380 English feet, or 125 metres.* This exceeds Sargent's greatest authenticated height (325 feet) of the Big Tree by 55 feet. Turning again to Sargent's *Silva*, he describes the Douglas Fir as often 200 feet high, and frequently much taller, adding that he had not been able to obtain any reliable information of the maximum height, but thought the existence of individuals exceeding 350 feet probable. His maximum authenticated height of the Big Tree, I may repeat, is 325 feet. Again, in his account of the Redwood Tree (*Silva*, vol. x.), he states (p. 141) that it is the tallest American tree, attaining 350 feet, the tallest actually measured being 340 feet high. He further adds that it may occasionally reach 400 feet or more. Then (p. 143) he remarks of the Redwood that among American trees it is exceeded in size by the Big Tree only! From the context there is no doubt that by size, height is meant, and not merely dimensions of the trunk. These statements are contradictory and confusing, and between ascertained and conjectured heights the question which is the tallest tree in the world—the Big Tree, the Redwood, or the Douglas Fir—is still unanswered. *W. Botting Hemsley.*

* There is evidently a misprint here, as 380 feet = 115·8 metres, and 125 metres = 410 feet.

**Perpetual-flowering Carnations.**—The unconditional recommendation by Mr. White (p. 162) to stop this class of Carnation at the second joint, when the plants have attained to 7 inches high, will not be likely to find many adherents among professional growers. To wait until a young Carnation plant reaches 7 inches high and then cut it down to within an inch of the soil is a sacrifice both of time and plant. Moreover, it is unnecessary. If we take three well-known Carnations, say, Enchantress, Britannia, and White Perfection, we find that in a good type of the cutting-raised plants, there are, often enough, six or more joints within 2 inches of the soil, hence it would savour of wanton destruction to cut such a plant as recommended; my remarks apply to plants raised from joint-made cuttings, short and sturdy. The "heel" cutting is of a somewhat different type and, below the line of full-leaf production, has an attentuated base, the young plant not infrequently elongating rather quickly in the early stages. Such as these require a somewhat different treatment, while those varieties of the dwarfest habit require to be treated separately. There is a type of cutting, however, that requires to be dealt with more severely than the rest. This is the late autumn-struck cutting, which not infrequently bolts into flower in the earliest days of spring. In such a case, every care should be taken to ensure that the stopping is made below the line of flower-bud production, otherwise all subsequent breaks from the uppermost joints will be of the abortive flower-bud type. With such as these latter, no mistake will be made if the stopping is done within the limits of the closely-set joints that abound on the first 3 inches or so of the stem of the plant. *E. J. Jenkins.*

**Pruning Wall Trees the First Year after Planting** (see p. 157).—I was looking at hundreds of trained wall trees last week which were being sold from an English nursery; many of the one season's growths were 4 feet long, not coarse shoots but of medium thickness. It is absolutely essential for a quick return that the trees should be pruned the first season after planting. What is required is to obtain the largest area of established tree growth in the shortest space, so that the greatest quantity of fruit can be had from such a tree each year after it is once established, and vigorous growth of the branches with a due regard to the shape and future training of the trees, so that those who follow half a century after have still a fruiting tree to depend upon. The way to obtain such a tree is by vigorous pruning of the shoots the first year after planting, but not so low as 6 inches of their base. Why do we prune the shoots at all, and why does a person cut down a hedge or tree which has become weakly at the base? The object is to obtain a vigorous growth from that part of the bush or hedge which is left. What generally happens to a fruit tree that is left as *H. W. W.* advises? Why, a few weakly shoots pushing from the points of the unpruned growth and many fruit-buds forming on the remainder, the shoots to be developed into blossom the next season, but very little growth such as will cover wall space and give a full crop in a short space. A shoot, if shortened to within, say, 8 or 10 inches of its base, will have sufficient vigour to push satisfactory growth from the base eyes below that point and inducing such growth to become at least 1 foot to 2 and 3 feet long the first year. Such rate of progress will be more satisfactory than that emanating from unpruned shoots even if treated on the bending principle.

**On Retarding the Blooming of Fruit Trees.**—I have read with interest Mr. A. C. Bartlett's note (see p. 157) on the paper written by Mr. John Saul, of the Durdham Down Nursery, Bristol, in the autumn of 1850 (nearly 60 years ago), on "Retarding the Blooming of Fruit Trees." In this paper "the writer first draws attention to the fact that, in their native

*Houlletia Sanderi*, from Messrs. SANDER & SONS, St. Albans.—A remarkable species of the section intermediate between Houlletia and Peristeria, the individual flowers bearing some resemblance to those of the Dove Orchid (Peristeria elata) and the growth to Houlletia Brocklehurstiana. Scape very stout and erect, one 9 inches, the other 1 foot, and bearing two and three inverted flowers respectively; the sepals are hooded over the lip; cream-white, with yellow at the base of the large, fleshy lip.

*Odontoglossum Gladys var. H. W. Cheal (cirrhosum × crispo-Harryanum)*, from Messrs. J. & A. A. MCBEAN, Cooksbridge.—A very bright and attractive hybrid, with white flowers tinged with canary yellow at the margins, and bearing very dark purple blotches, especially on the sepals.

BOTANICAL CERTIFICATE.

*Polystachya bracteosa*, from Sir TREVOR LAWRENCE, Bart., K.C.V.O.—A curious species from tropical Africa, with flattened pseudo-bulbs and racemes of pale-greenish flowers with reddish markings.

CULTURAL COMMENDATION.

To Mr. W. H. White, Orchid grower to Sir TREVOR LAWRENCE, Bart., K.C.V.O., for Sarcochilus Hartmannii, with four spikes of pretty white flowers, and which had been in the collection at Burford for about 30 years.

## Fruit and Vegetable Committee.

*Present:* George Bunyard, Esq. (in the Chair), and Messrs. Jos. Cheal, W. Bates, Alex. Dean, E. Beckett, H. Parr, H. Markham, J. Davis, James Vert, G. Reynolds, Chas. Foster, P. C. M. Veitch, Geo. Wythes, Owen Thomas, H. Somers Rivers, John Lyne, W. Poupart, C. G. A. Nix, A. H. Pearson, and G. Hobday.

Prior to the consideration of ordinary business, Mr. O. Thomas, V.M.H., proposed a vote of sympathy with the members of the family of Mr. J. McIndoe, V.M.H., whom he characterised as a great gardener, and one of the n s se eminent of British fruit-growers. In not less kindly terms Mr. G. Wythes, V.M.H., seconded the proposition, which was also cordially supported by the Chairman, and was carried in silence.

Messrs. SUTTON & SONS, Reading, staged a collection of some 50 dishes of early vegetables, including some capital salads. The entire collection was of high-class quality. Their Early White Broccoli was shown in perfect form, many of the heads being almost white. All had been cut from a seed stock grown in an open field. They also showed Early Purple and White Sprouting Broccolis of high excellence, especially the white form, which seemed the ideal sprouting variety. There were also two baskets, each holding 12 heads of that very early, firm-hearting Cabbage Harbinger, of perfect form, and three dishes of Pea Duchess of York. The exhibit also included four dishes of Tender and True climbing Bean, showing its fitness for forcing, two baskets of 20th Century Mushrooms, Potatos Sutton's Seedling and Satisfaction, Cucumber Delicacy, Winter Lettuces, Endives, blanched Chicory, Seakale, Rhubarb, Tomato Early Market, Mustard and Cress in boxes, and young Onions. (Silver-gilt Knightian Medal.)

Messrs. JAS. VEITCH & SONS, Chelsea, showed a lesser collection of similar vegetables, including numerous Cabbage Lettuces Paris Market, Early France, White Passion, Early Favourite, Heartwell, and Golden Queen, the last-named being very dwarf; also Borecole New Sprouting with partially curled leafage and very dense heads, and two baskets of variegated Kales, numerous varieties of Radishes, and good Seakale. (Silver Banksian Medal.)

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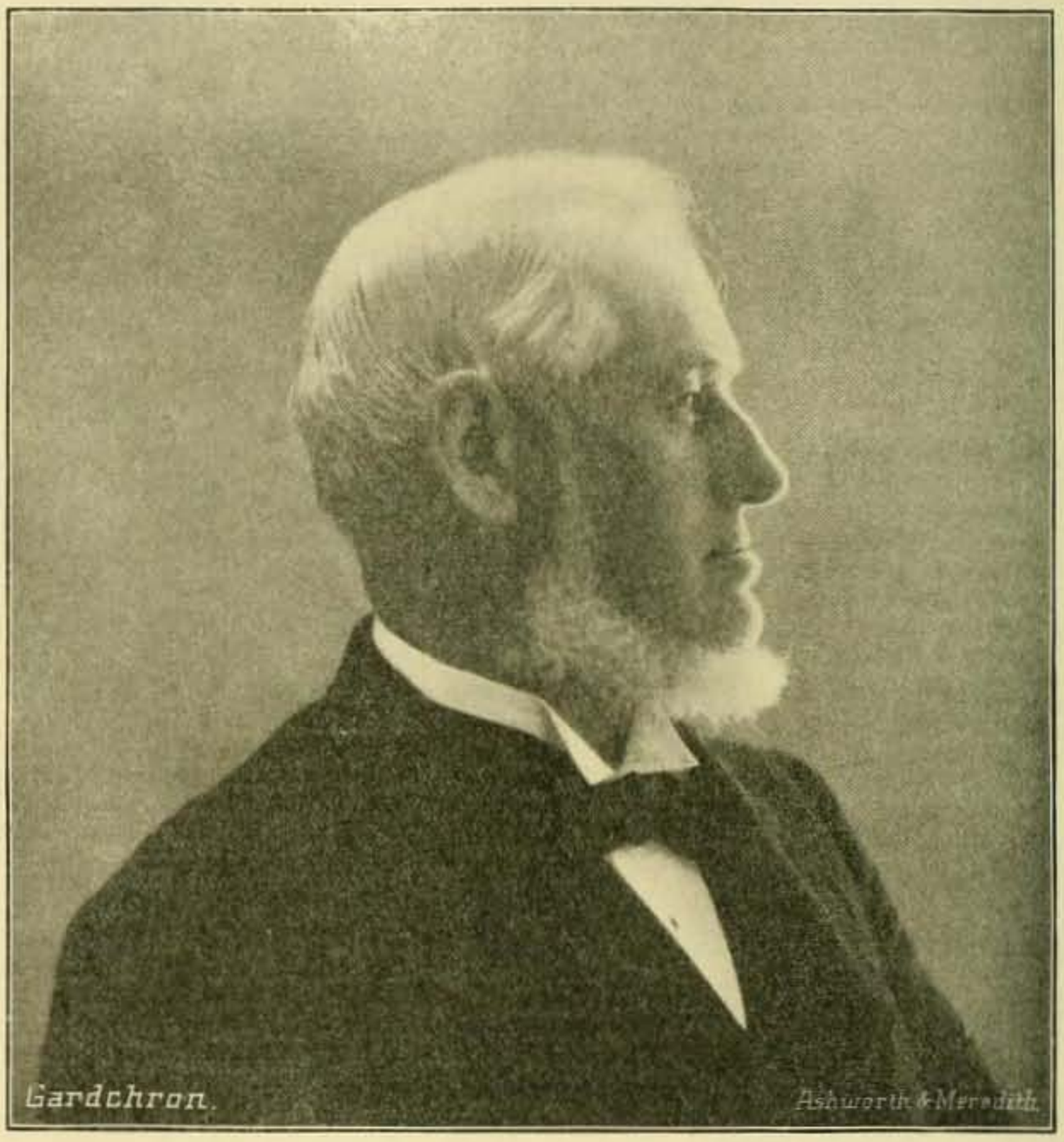
# FOURTH MASTERS MEMORIAL LECTURE.

Mr. A. D. Hall, F.R.S., Director of the Rothamsted Experimental Station, delivered the second of the Masters memorial lectures for 1910 at the Royal Horticultural Society on March 22, Professor Bateson, F.R.S., in the chair. In order to obtain some basis of knowledge for the association of given plants with certain soils, the lecturer turned to farm crops, about the requirements of which so much was known experimentally, and began by exhibiting a map showing the distribution of fruit in the counties of Kent, Surrey, and Sussex. A map had been prepared, on which the acreage of fruit in each parish was indicated by a series of black dots, thus forming together a shading showing the density of planting. Such a map, when considered alongside a geological map of the same district, at once showed that the fruit was congregated on certain formations and absent from others. Moreover, if the soils on which the fruit was found to flourish were subjected to what is called a mechanical analysis, i.e., a separation into groups of particles according to their size, the coarser groups forming sand, the finer silt, and the finest of all clay, we find that they possess constitutions so similar that we can draw up a specification or type of what a fruit soil should be. The analysis of any unknown soil would then show if it agreed with this specification, and, therefore, if it were suitable or not for fruit, supposing that other factors of elevation, aspect, etc., were appropriate. The lecturer exhibited maps showing the distribution of Hops, Turnips, Barley and other crops, which revealed a similar correlation between the crop,




THE LATE JAMES MCINDOE, V.M.H., WHOSE DEATH WAS ANNOUNCED IN THE LAST ISSUE.

the geological formation, and the structure of the soil as determined by mechanical analysis. Yet farm crops are amongst the least particular of plants, otherwise they would not have received the widespread cultivation by which they are characterised. When dealing with more special and fastidious plants a closer correlation between mechanical composition of the soil and the distribution of the plant would be expected. The importance of the mechanical composition of the soil lies in the fact that upon the size of the particles making up the soil depends such important factors as the supply of water to the plant, the temperature of the soil, and, to some extent, the temperature and humidity of the air surrounding the plant. These are among the most potent factors in the well-being of the crop, as every owner of a greenhouse is aware.

In order to decide upon the kind of soil required by a given plant, empirical methods alone can be followed, beginning by putting together a number of analyses of soils in which the plant does well. *A priori*, it would be impossible to predict what the requirements of the plant will be. Indeed, not enough is known about the requirements of plants under natural conditions: even the amount of water transpired during growth has only been determined for a few farm plants, and how that figure is affected by temperature, sunshine, wind and the humidity of the air has not yet been experimentally determined. What, then, is wanted is more experiments and more data. In collecting data, however, the competition factor to which allusion was made in the former lecture must be eliminated, only plants growing under similar conditions of cultivation can be compared.

But though the mechanical composition of soils reveal the chief factor in the association of plant and soil, one or two chemical factors of importance can be discerned. A distinction must be made between acid and non-acid or neutral soils, the acid soils being generally recognisable in nature by the tendency of peat to accumulate on them. It is probable that the plants themselves are indifferent to any acidity of the soil-water from which they are drawing nutrition, but in an acid medium the action of bacteria is generally suspended. In such soils, for example, when the action of the decay bacteria and of those causing nitrification are suspended, the soil becomes wholly permeated by the mycelium of various moulds and other micro-fungi. As a consequence of the stoppage of nitrification, plants are driven to feed upon ammonia and other nitrogent compounds to which the micro-fungi gives rise, and many plants appear to be intolerant of such conditions. Again, many classes of plants—certain Ericas, Conifers and Orchids—derive their food supplies from the soil by the aid of the mycelium of certain fungi with which their roots are associated. Such cases of mycorhiza are associated with acid soils in which nitrates are lacking; probably the mycelium of the special fungi cannot stand the competition with bacteria in neutral or slightly alkaline soil in which bacteria flourish.

The association of acidity or neutrality of soil with particular plants would seem to be an ecological factor worthy of more observation.

The other factor of importance is the amount of carbonate of lime in the soil, but a distinction must be drawn between the cases in which carbonate of lime acts merely as maintaining a neutral reaction and those in which it acts positively, and is of direct benefit to certain plants. Carbonate of lime is regarded as

poisonous to certain plants, e.g., Erica, Rhododendron; but this is probably not a positive injurious action of the line on the plant, but a secondary one in that the lime removes the acid soil conditions which these plants find necessary. The very distinctive aspect of the chalk and the limestone flora, the prevalence of certain plants only on such areas, e.g., Clematis vitalba, would seem, however, to show that a positive correlation exists between certain plants and an abundance of carbonate of lime. Here, again, more experimental evidence is wanted, but experiments are made difficult by the necessity of introducing the competition factor. When plants are grown in pots and trial plots the treatment may depress the vitality of one lot by 20 per cent., an amount more than enough to secure its total elimination in a state of nature without any effect being perceptible in the growth. When protected from competition the growth does not depend upon what might be called vitality or constitution, but upon food supply.

Certain special cases also have been recorded in which the presence of particular constituents in the soil seems to produce pathological disturbances in the plant, even to the extent of setting up teratological changes such as were studied by the distinguished man in whose honour these lectures were founded, but here, again, experimental evidence is lacking. The lecturer concluded by stating that his lectures had been all along directed to indicating the extent of our ignorance and the field for work that is open. In the present state of our knowledge it is vanity to dogmatise about the requirements in the way of soil of more than a very few plants.

## SHROPSHIRE HORTICULTURAL.

MARCH 18.—The annual meeting of the Shropshire Horticultural Society was held at Shrewsbury on this date. The Mayor of Shrewsbury (Mr. Benjamin Blower) presided. Mr. Naunton presented the committee's report, which stated that the total receipts at the gates on the two days of the show amounted to £2,689 6s., while the receipts from all sources amounted to £5,245 18s. 7d. The balance-sheet showed that the receipts from the summer show reached the sum of £4,952 12s. 3d., and the disbursements £4,306 2s. 2d., leaving a profit of £646 10s. 1d. The expenses connected with the spring show amounted to £139 11s. 5d. Mr. E. C. Peele moved the adoption of the report and balance-sheet, and the motion was carried. Mr. A. Wynne Corrie was elected president for the year, and the retiring president, Sir Clement Hill, M.P., was thanked for his services.

# Obituary.

**JAMES MCINDOE.**—The late Mr. McIndoe, whose death was recorded in our last issue, gained his early gardening experience at Archerfield, East Lothian, but he must have come to England while still young, for he served in various places as foreman; the last was probably at Addington, near Croydon (at that time occupied by the Archbishop of Canterbury). In the early 'sixties he was appointed gardener to the then Archbishop of York, at Bishopthorpe Palace. He remained at Bishopthorpe some seven years, and made a name at the northern shows as a successful exhibitor, especially of the Hollyhock. In the year 1874, the late Sir Joseph Pease was making great extensions to his gardens at Hutton Hall, and Mr. McIndoe was engaged to undertake the management. All the fruit borders were formed, and the vines, Peaches, and other trees planted under his direct supervision, therefore the credit for the excellent results which followed is due to him. Mr. McIndoe found in Sir Joseph Pease a kind and generous employer, who provided him with the most up-to-date glass structures. There were serious drawbacks, however, to meet and combat, chiefly owing to the situation of the gardens and the cold climate. Hutton Hall is situated in a valley at the foot of the Cleveland Hills, and within a short distance of the North Sea. It is not unusual for the gardens to be enveloped by a dense cold "sea fret," as it is termed there, for many weeks together during the spring and early summer months. Owing to these circumstances frequent anxiety and difficulty were found in setting the flowers of vines, Peaches, and even Melons. Similar trouble was experienced in the autumn, when sunshine was required to mature the crops and the current season's shoots. Most varieties of Grapes were given a trial in the extensive vineries, and though many failed to fruit satisfactorily, some, owing to their free and strong habit of growth, were retained as stocks to be grafted with the satisfactory kinds. Perhaps this fact may, in some measure, account for the vines continuing so long to produce exhibition bunches. Instances could be given of varieties which were improved by this grafting system at Hutton, such as the Black Hambro' worked on the Barbarossa, &c. Mr. McIndoe followed no rule-of-thumb practice in the treatment of his vines, unless it was in allowing plenty of room between the leaves and roof glass, and in keeping the foliage as thinly disposed as possible. In most instances the vines, being planted 6 feet apart, the spurs were induced to form alternately; thus each shoot was trained along the wire until it met the next cane. In this way there was no fear of overcrowding, and each leaf had, as it were, its own position. Perhaps one of the finest exhibits in Grapes Mr. McIndoe ever made, was at Edinburgh some years ago, the 12 bunches weighing something like 86 lbs. It would be impossible to refer to the many grand exhibits of fruit made by Mr. McIndoe both in Scotland and throughout England; they were always amongst the most successful and they were continued for a great number of years. McIndoe's "Best of All" Melon has, perhaps, secured more prizes throughout the country than any other variety. He also raised and sent out another good variety under the name of Scarlet Premier. Mr. McIndoe was selected as one of the first to receive the Victoria Medal of Honour. Since retiring some years ago from the charge of the gardens Mr. McIndoe resided chiefly at Dartford, and attended the meetings of the Fruit and Vegetable Committee of the Royal Horticultural Society. As soon as he found himself at liberty and could take a holiday, he sailed to Auckland, New Zealand, to visit a brother who had been established there as a nurseryman for nearly half a century. This was no small undertaking for a man turned 70 years of age. The deceased was 73 years of age. His remains were interred at Wilmington Churchyard, Dartford, on the 16th inst.

# DEBATING SOCIETIES.

**SHINFIELD COTTAGE GARDEN.**—This old society, which lapsed after 25 years good work, has been revived. The annual flower show was always regarded as a local holiday. The show will be held in August.

**ELSTREE HORTICULTURAL.**—At the meeting, on Tuesday, March 15, held in the Church Room, Elstree, Mr. W. Cutbush, of Barnet, gave a lecture on "Roses." At the close of his remarks, the lecturer answered several questions on the subject. An exhibition of Hyacinths, in competition for prizes by the school children, was held in conjunction with the meeting. A superb collection was staged by Mr. E. Beckett, V.M.H., gardener to the Hon. V. Gibbs, the president of the society, as a special exhibit.

**BATH GARDENERS'.**—A well-attended meeting of the society was held on March 14, when Mr. W. T. Parrott presided. A paper on "Asparagus" was read by Mr. W. G. Edwards. The lecturer sketched the early history of the plant, and gave the various methods of cultivation. Propagation, he said, could be effected by seeds or by division, but the former method was by far the best. Seed should be sown during the first week of April, in drills, and the seedlings should be thinned to 6 inches apart. In the following March or April they should be transplanted to the permanent beds.

**BRITISH GARDENERS' ASSOCIATION** (LONDON BRANCH).—On March 19 about 100 members and friends were present at a concert at Carr's Restaurant, Strand. Mr. E. F. Hawes, chairman of the branch, presided. The musical programme was arranged by Mr. Andrews and proved a great success. Selections from Shakespeare were admirably rendered by Mr. Clarke.

**BANBURY AND DISTRICT GARDENERS'.**—This society met at the White Horse Hotel, Banbury, on Friday, March 18, when Mr. Wadham, gardener to Mrs. Bradshaw, Steeple Aston Grange, gave a lecture on "The Culture of Early-flowering Plants for the Garden and Allotment," in the place of Mr. G. Hunter, of Blenheim Palace Gardens, who at the last moment was unable to attend. About 30 members were present. Mr. Wadham dealt principally with Stocks, Mignonette, Forget-me-Nots, Violets, and some of the easily-cultivated Orchids.

# MARKETS.

*COVENT GARDEN, March 22.*

[We cannot accept any responsibility for the subjoined reports. They are furnished to us regularly every Wednesday, by the kindness of several of the principal salesmen, who are responsible for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the week preceding the date of our report. The prices depend upon the quality of the samples, the way in which they are packed, the supply in the market, and the demand, and they may fluctuate, not only from day to day, but occasionally several times in one day.—EDS.]

**Fruit: Average Wholesale Prices.**

| | s.d. | s.d. |
|---|---|---|
| Apples Newtown (U.S.), per barrel | 26 0 | 28 0 |
| — (Nova Scotian), per barrel: | | |
| — Starks | 16 0 | 18 0 |
| — Baldwin | 14 0 | 17 0 |
| — Greening | 14 0 | 18 0 |
| — Russett | 17 0 | 21 0 |
| — Fallawater | 18 0 | 20 0 |
| — Ben Davies | 16 0 | 18 0 |
| — (English), per bushel: | | |
| — Annie Elizabeth | 5 6 | 6 6 |
| — Newton Wonder | 5 0 | 7 0 |
| — Bramley's Seedling | 5 0 | 8 0 |
| — Newtown Pippin, per case | 7 0 | 8 6 |
| — Oregon | 11 6 | 14 0 |
| — French Russets | 8 0 | 10 0 |
| — British Columbia | 12 0 | 18 0 |
| Bananas, bunch: | | |
| — Doubles | 10 0 | — |
| — No. 1 ,, | 8 0 | 10 0 |
| — Extra ,, | 8 0 | 10 0 |
| — Giant ,, | 9 0 | 11 0 |
| — Red coloured | 4 6 | 6 0 |
| — Red Doubles | 8 0 | 9 0 |
| — Jamaica ,, | 5 0 | 5 6 |
| — Loose, per dz. | 0 6 | 1 0 |
| Cranberries, p. case | 6 6 | 7 6 |
| Custard Apples, p. dozen | 6 0 | 12 0 |
| Grape Fruit, case | 10 0 | 14 0 |
| Grapes, per lb.: | | |
| — (Cape) black, per case, large | 10 0 | — |
| — ,, small | 5 0 | 6 0 |
| — Gros Colmar, A quality | 2 0 | 3 0 |
| — B quality | 1 0 | 1 9 |
| — Alicantes, A quality | 1 6 | 2 6 |
| — B quality | 1 3 | 1 9 |
| — Gros Colmar (Belgian) | 1 3 | 2 0 |
| — (Almeria), per barrel | 14 0 | 20 0 |
| p. 12 lb. baskets | 5 0 | 8 0 |
| Lemons, box: | | |
| — Palermo, 300 | 7 0 | 9 6 |
| — ,, 360 | 9 0 | 10 0 |
| — selected, case | 11 0 | 13 0 |
| Limes, per case | 2 6 | 3 0 |
| Lychees, per box | 1 6 | 1 9 |
| Mangoes (Cape), per doz. | 4 0 | 10 0 |
| Nectarines (Cape), per box (24 to 28 fruits) | 5 0 | 10 0 |
| Nuts, Almonds, p. bag | 36 0 | 42 0 |
| — Brazils, new, per cwt | 32 0 | 36 0 |
| — Barcelona, per bag | 32 0 | 34 0 |
| — Cob, per lb. | 0 3 | 0 3½ |
| — Cocoa nuts, 100 | 10 0 | 14 0 |
| — (Italian), p. bag | 11 0 | 13 0 |
| Oranges— | | |
| — Palermo Blood (80) | 7 6 | 8 6 |
| (100) | 8 0 | 9 6 |
| — Californian Navel, box (96) | 10 6 | 11 6 |
| — ,, ,, (112) | 12 0 | 13 0 |
| — Jaffas, per box | 9 0 | 11 0 |
| — Denia, per case (420) | 12 0 | 22 0 |
| — Valencia, per case (420) | 11 0 | 20 0 |
| — Messina Bitters, per box | 10 6 | 11 0 |
| — Mandarine, Florida, p. case | 11 0 | 13 0 |
| — — per box | 1 4 | 1 6 |
| — — Jamaica, p. case | 9 6 | 10 6 |
| — Tangerine, per box | 0 6 | 0 10 |
| — Seville Sours, per ½ chest | 15 0 | 16 0 |
| Peaches (Cape), per box (12) | 8 0 | 12 0 |
| Pears (Avacado), per doz. | 6 0 | 12 0 |
| — (Cape), per box (24, 28, 32), Williams' BonChrétien | 2 6 | 4 0 |
| — (Australian), p. tray | 4 0 | 5 0 |
| Pineapples, each | 3 0 | 5 0 |
| Plums, (Cape), per box (15 to 28 fruits), Wickson | 4 0 | 6 0 |
| — (Cape), Apple per box | 9 0 | 14 0 |
| Satsuma | 5 0 | 7 0 |
| — Chalcot, p. box | 5 0 | 7 0 |
| Strawberries, p. lb. | 6 0 | 8 0 |
| — seconds | 2 0 | 4 0 |

**Vegetables: Average Wholesale Prices.**

| | s.d. | s.d. |
|---|---|---|
| Artichokes (Globe), per dozen | 2 0 | 2 3 |
| — Jerusalem, ½ sieve | 0 9 | 1 0 |
| Asparagus, Paris Green, bundle | 6 6 | 7 6 |
| — Sprue, bundle | 0 10 | 1 0 |
| — Lawies, bundle | 6 0 | 8 0 |
| Beans (English and Chan. Islands), per lb. | 1 0 | — |
| — Broad (French), per pad | 4 0 | 5 6 |
| — (Madeira), per basket (6 to 8 lbs.) | 2 6 | 3 6 |
| Beetroot, per bushel | 1 6 | 2 0 |
| Cabbages, p. tally | 2 6 | — |
| Cardoons (French), per dozen | 8 0 | 10 0 |
| Carrots (English), dozen bunches | 2 9 | 3 0 |
| — per bag | 3 6 | 4 0 |
| — unwashed | 1 6 | 1 9 |
| Cauliflowers, tally | 6 0 | 8 0 |
| — (French), per crate (24-30) | 3 6 | 4 6 |
| Celeriac, per doz. | 1 6 | 2 6 |
| Chicory, per lb. | 0 2½ | 0 3 |
| Cucumbers, per dz. | 3 6 | 4 6 |
| Endive, per dozen | 2 0 | 2 3 |
| Horseradish, foreign, new, per bundle | 1 0 | 1 3 |
| — 12 bundles | 12 0 | 15 0 |
| Leeks, 12 bundles | 1 0 | 1 6 |
| Lettuce (French), per dozen | 1 0 | 1 6 |
| — (Cos), per doz. | 3 6 | 5 6 |
| Marrows (Madeira), per doz. | 12 0 | 18 0 |
| Mushrooms, per lb. | 0 8 | 0 9 |
| — broilers | 0 6 | — |
| Mustard and Cress, per dozen pun. | 1 0 | — |
| Onions (Dutch), p. bag | 3 0 | 3 6 |
| — (English), bag | 4 0 | 4 6 |
| — pickling, p. bshl. | 7 0 | 8 0 |
| — Spring, per dz. bunches | 3 0 | 4 0 |
| — (Valencia), per case | 8 6 | 9 6 |
| Parsley, ½ sieve | 1 6 | 3 6 |
| Parsnips, per bag | 1 6 | 2 0 |
| Peas (French), per pad | 3 0 | 5 0 |
| Potatos (Channel Islands), per lb. | 0 4 | — |
| — (Teneriffe), per cwt. | 10 0 | 15 0 |
| Rhubarb (forced), doz. bundles | 0 4 | 0 8 |
| — Natural, per tally | 5 6 | 6 6 |
| Radishes (Guernsey), per dozen | 0 8 | 0 9 |
| Savoys, per tally | 4 0 | 7 0 |
| Seakale, per dozen punnets | 10 0 | 12 0 |
| Spinach, ½ sieve | 2 6 | 3 0 |
| — (French), crate | 4 0 | 5 0 |
| Sprouts, ½ sieve | 1 0 | 1 3 |
| — per bag, 28 lbs. | 1 3 | 2 6 |
| Sprouting Broccoli, bag | 1 3 | 1 9 |
| Stachys tuberosa, per lb. | 0 4 | 0 5 |
| Tomatos— | | |
| — (Teneriffe), per bundle | 6 0 | 12 0 |
| Turnips, 12 bchs. | 2 0 | 3 0 |
| — bags | 2 0 | 2 6 |
| — dirty, per bag | 1 6 | 2 0 |
| Turnip Tops, bag | 1 0 | 2 0 |
| Watercress, p. flat | 4 0 | 6 6 |

**McCOWN** Alexander of 21 Dudley-road **Hastings** died 19 July 1910 at Lucerne Switzerland Probate **Lewes** 18 August to Esther Eliza McGown widow.
Effects £1634 18s. 1d.

**McCRATH** Caroline of 13 Shepherd-street Mayfair **Middlesex** died 11 May 1891 Administration **London** 4 March to Elizabeth Mary McGrath spinster. Effects £270.

**McCRATH** Jane of Butley Hall Prestbury near **Macclesfield** spinster died 18 December 1909 Administration **Chester** 8 March to Catherine Edgar spinster.
Effects £46 17s. 11d.

**McCRATH** Percy of 23 Burnbury-road Balham **Surrey** died 26 July 1910 Administration **London** 11 August to Ethel McGrath widow. Effects £476 19s. 11d.

**McCRATH** Thomas Phillip of 20 Jersey-street Strood **Kent** died 18 December 1909 Probate **London** 21 April to William James Brown dockyard smith and John Edward Ezzard Hooker licensed victualler.
Effects £330 18s. 7d.

**McCREAL** Lawrence of 16 Walton Well-road **Oxford** seedsman died 30 October 1910 Probate **Oxford** 15 November to Mary McGreal widow. Effects £326 11s. 6d.

**McCREAVY** Patrick of 1 Manx-street Stanley county **Durham** died 20 April 1910 Probate **Durham** 5 July to Margaret McGreavy widow. Effects £12 12s.

**McCREEVY** John Donelly of Chesterfield **Derbyshire** hawker died 5 February 1910 Probate **Derby** 7 May to William Lomas general dealer. Effects £18 4s. 7d.

**McCRECCOR** Moses of 10 High-street Mountain Ash **Glamorganshire** died 27 December 1909 Administration (with Will) **Llandaff** 7 February to Catherine George McGreggor widow. Effects £235 2s. 3d.

**McCRECOR** David of 2 Northumberland-square **North shields** master mariner died 15 December 1909 Probate **Newcastle-upon-Tyne** 24 March to Mary Josephine McGregor widow. Effects £873.

**McCRECOR** Margaret Stelfox of Leven-terrace Fairfield near **Manchester** spinster died 6 December 1909 Administration **London** 24 January to Agnes Webb (wife of Duncan Webb).
Effects £9842 11s. 10d. Resworn £10671 8s. 9d.

**McCRECOR** Mary of Inverdene Ballater county **Aberdeen** spinster died 21 February 1904 Eik to Confirmation of Jessie McGregor spinster. Sealed **London** 8 October.

**McCRECOR** Ronald of Station-street Ashborne **Derbyshire** ironmonger's traveller died 19 December 1909 Probate **Derby** 12 January to Arthur Taylor joiner and Alfred Taylor cashier. Effects £322 15s. 10d.

**McCRECOR** Walter of 10 Agar-street Strand **Middlesex** died 30 August 1910 at Charing Cross Hospital Middlesex Administration **London** 11 October to Knudina Andrea McGregor widow. Effects £15 17s. 7d.

**McCRECOR** William of Kohima Richmond Park **Bournemouth** died 6 March 1910 Probate **London** 21 March to Jane Margaret McGregor widow.
Effects £228 13s. 9d.

**McCUINESS** Mary of 155 Liverpool-road Birkdale **Lancashire** widow died 17 December 1904 Probate **London** 11 November to Thomas Openshaw secretary.
Effects £925. Former grant **Liverpool** March 1905.

**McCUINNESS** Maurice of 629 Queen's-road **Sheffield** died 18 March 1910 Administration **Wakefield** 27 April to May McGuinness widow. Effects£100 10s.

**McCUIRE** James of 78 Hall's-crescent Rochdale-road **Manchester** railway goods inspector died 7 March 1910 Probate **Manchester** 13 May to John Pickup Orchard and William John Gould railway clerks.
Effects £114 14s.

**McCUIRE** Robert of 4 Holmdale-road Stamford Hill **Middlesex** died 19 September 1910 Administration **London** 4 October to John McGuire army pensioner.
Effects £174.

**McCUIRE** William of 11 Henry-street Bolton **Lancashire** died 9 January 1910 at 4 Argo-street Bolton Lancashire Probate **Manchester** 30 March to Julia McGuire spinster.
Effects £157 16s. 9d.

**McHALE** Eleanor of 134 Whalley New-road **Blackburn** (wife of John McHale) died 8 February 1896 Administration **Lancaster** 7 June to the said John McHale blacksmith's striker. Effects £32.

**McHARDIE** Finlay of 43 Gardner-road Prestwich **Lancashire** railway clerk died 11 September 1910 Probate **Manchester** 18 October to Mary McHardie widow.
Effects £87 6s. 9d.

**McHARG** James of 11 Blenkinsop-street Wallsend **Northumberland** retired master mariner died 8 January 1910 Probate **Newcastle-upon-Tyne** 6 May to James MacHarg builder and contractor and William Henry McHarg mechanic. Effects £96 0s. 3d.

**McHATTIE** George of 19 Newhall-road **Sheffield** died 8 May 1910 Probate **London** 15 June to Thomas Henry Coe grocer. Effects £96 13s. 9d.

**McHUGH** Mary Ann of 41 Hewitt-street Cheetham **Manchester** widow died 13 November 1909 Administration (limited) **Manchester** 18 March to Thomas Francis McHugh commercial clerk. Effects £36 12s. 2d.

**McILQUHAM** Harriett of Staverton House Staverton **Gloucestershire** (wife of James Henry McIlquham) died 24 January 1910 Probate **Gloucester** 9 May to Gilbert McIlquham solicitor Harold McIlquham solicitor and Harriett Gee (wife of Brightric Gofton Hutton Gee) and Mary McIlquham spinster. Effects £5895 11s. 8d.
Resworn £5996.

**McILROY** Mary Jane of Ardeen Strandtown county **Down** spinster died 4 August 1910 Probate **Belfast** to Annie Isabella McIlroy spinster. Effects £1783 2s. 1d.
Sealed **London** 21 September.

**McILWAIN** George Knox of Philadelphia Pennsylvania United States of **America** died 29 March 1910 at Fez Morocco Administration (with Will) **London** 19 December to Michael Abraham El-Khazen interpreter.
Effects £1431 9s. 7d.

**McILWRAITH** Edward Richardson of 21 Deronda-road Herne-hill **Surrey** died 30 December 1908 at the Pretoria Hospital Pretoria Transvaal Colony Administration **London** 4 March to Charles Hugh McIlwraith M.D.
Effects £100.

**McILWRAITH** William of 6 Burnt Ash-lane Bromley **Kent** died 2 December 1909 Probate **London** 4 January to Clara Dinah McIlwraith widow. Effects £680 3s. 9d.

**McINDOE** James of Dumbreck Miskin-road Dartford **Kent** died 16 March 1910 Probate **London** 8 April to William Harston architect and Arthur Jerman M.B.
Effects £1405 10s. .6d. Resworn £1455 10s. 6d.

**McINDOE** Marianne Clark of Malone Combe Down **Bath** widow died 3 June 1910 Administration **Bristol** 23 June to Archibald Clark McIndoe commercial traveller.
Effects £320 0s. 4d.

**McINNES** or **MILLER** Emily Graham of Queensmount **Helensburgh** (wife of Archibald Russell Miller) died 22 May 1910 Confirmation of Archibald Russell Miller turkey red dyer Archibald McMillan merchant Clarke Hallett Lloyd Stoughton gentleman.
Sealed **London** 24 October.

**CAMPBELL**
**McINROY** Magdalene or Madeline. See **CAMPBELL** for **McINROY.**

Oxford Dictionary of National Biography

**M'Intosh, Charles** (1794–1864), *horticulturist*
by Peter D. A. Boyd
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**M'Intosh, Charles** (1794–1864), horticulturist, was born at Abercairney in the parish of Fowlis Wester, near Crieff, Perthshire, on 8 August 1794, the son of John M'Intosh and his wife, Muntague, *née* Ladden. He was descended from a line of gardeners: his grandfather, great-grandfather, and great-great-grandfather had been gardeners to the dukes of Atholl, while his father was the gardener, forester, and manager of improvements on the Abercairney estate for nearly fifty years.

M'Intosh was educated at the parish school of Fowlis Wester, at Madderty Academy, and, finally, for some years in Perth. It was suggested that he should study for the Church of Scotland and he made some progress in preparation for theological studies. However, his ‘gardening genes’ were dominant and ideas of entering the church were abandoned, and for several years he worked as assistant to his father at Abercairney.

In 1814, aged about twenty, M'Intosh travelled to England under the patronage of the landscape gardener Lewis Kennedy (1789–1877). Kennedy introduced him to his father, the senior partner of the important nursery of Lee and Kennedy at Hammersmith, London. After working in their nursery for a period, he was recommended by them as gardener to the Hon. John Coventry, a younger son of the seventh earl of Coventry, at Bishopsgate, near Windsor. During this period M'Intosh became acquainted with William Aiton (1766–1849) and John Aiton (1777–1851), directors of the Royal Gardens including Windsor and Kew. The Aiton brothers became lifelong friends of M'Intosh. He was married to Elisabeth (Betsay) Pasmore, with whom he had at least three sons and three daughters.

Dissuaded by Sir John Erskine of Torrie (who had lived in India) and James Moray of Abercairney from taking up a position with the East India Company as superintendent of an experimental garden for the culture of Indian productions on Prince of Wales Island in the Straits of Malacca, M'Intosh instead returned to Abercairney as assistant to his father. James Moray subsequently recommended him to the earl of Breadalbane at Taymouth Castle, Perthshire, where he worked for four years as gardener and forester, taking the opportunity to explore the rich natural history of the area around Loch Tay, including the mountain of Ben Lawers with its alpine flora. He claimed to have climbed to the summit of Ben Lawers thirty times, in all seasons and once on Christmas day.

While at Taymouth Castle M'Intosh became acquainted with the architect William Atkinson, who was employed to draw up plans for an east wing at the castle. M'Intosh impressed Atkinson by being the only person at Taymouth who could provide him with adequate measured ground plans and levels, and their common interest in plants (Atkinson was a founder of the Horticultural Society of London) led to friendship. M'Intosh left Taymouth, went to London as a guest of Atkinson, and was immediately offered the choice of three good situations. He took up the position of gardener to Sir Thomas Baring of Stratton Park in Hampshire, where he stayed for six years in the mid-1820s. He left Stratton Park to work for Thomas

Hornor, to assist him laying out and planting the grounds at the Colosseum at Regent's Park, London. At the same time he was writing *The Practical Gardener*, published in two volumes in 1828–9 (later described by James McNab of the Royal Botanic Garden, Edinburgh, as a work of national importance).

In 1829 M'Intosh was offered and accepted the post of gardener to Prince Leopold of Saxe-Coburg at Claremont, Esher, Surrey. He later accompanied Leopold when he became sovereign to Greece and subsequently to Brussels when Leopold became king of Belgium. M'Intosh spent seven years between Claremont and Brussels, spending three to nine months at each place at any one time. He built the range of hothouses at Lechan, altered much of the grounds, and laid out a new kitchen garden. He travelled over a large part of Belgium, reporting on the progress of horticulture and agriculture, having *carte blanche* to visit every establishment in the kingdom. Leopold was a good and kind employer who obviously respected M'Intosh, who was able to visit parts of Holland, Germany, and France, as well as Belgium, at his royal employer's expense.

M'Intosh became known to Princess Victoria while he was at Claremont. He also showed the grounds to Prince Albert on his first arrival in England, accompanied by his brother the reigning duke of Saxe-Coburg, as well as to the king consort of Portugal, and Louis Phillippe of France. On one occasion he had the very unusual honour of escorting three queens at the same time through the grounds (Queen Adelaide, Queen Victoria, and the queen of the Belgians).

While at Claremont, M'Intosh wrote *Flora and Pomona* (1829–31, with coloured illustrations of fruits and flowers) but his frequent visits to Belgium interfered so much with that work that he gave up the book when he had only completed one volume; in 1839 he used his knowledge of fruit growing to write *The Orchard* in one volume. The two-volume *Practical Gardener* had sold so well that the publisher employed M'Intosh to write a completely new edition of it in one volume. This was completed just before he was appointed to his next position. *The Greenhouse, Hothouse and Stove* was published in 1838. *The Flower Garden* (1837–8), for which he is credited, described national styles of gardening (Italian, French, Dutch, and English), and thus galvanized Victorian gardening controversies.

In 1838 M'Intosh left the service of the king of the Belgians and returned to Scotland as head gardener to the duke of Buccleuch at Dalkeith Palace near Edinburgh. He was responsible for planning and planting magnificent new gardens, hothouses, and conservatories that became famous. When Queen Victoria and Prince Albert visited Scotland for the first time in 1842 they asked to meet M'Intosh, who escorted them through the grounds.

In November 1851, when M'Intosh was fifty-seven, 600 subscribers contributed to a testimonial to him, ‘considering the eminent services he has rendered to science and the country as a Horticulturist and Landscape Gardener, and as the author of many valuable works on these subjects’ and his ‘high moral worth’ (*Prospectus*). He was presented with a tea service and a purse of £325. He continued to write and his *Book of the Garden* was published in 1853–5 in two volumes. In 1855 he left Dalkeith to become a freelance landscape gardener and garden architect. In this role he not only advised on the gardens and parks of the gentry and nobility but also the ‘villa residences’ of the middle classes. His *The Larch Disease and the Present Condition of the Larch Plantations in Great Britain* (1860) was a significant book for landowners and foresters since larch had become an

increasingly important plantation tree over the previous century.

M'Intosh was a frequent contributor to the *Gardener's Magazine*, *Paxton's Magazine of Botany*, and the *Gardeners' Chronicle*, and also to horticultural and agricultural journals, ‘conducting’ the horticultural section of the *Scottish Farmer* from its commencement in about 1861 until his death three years later. He was a corresponding member of the Royal Caledonian Horticultural Society, the Royal Horticultural Society, the Massachusetts Horticultural Society, and the Sheffield Botanical and Horticultural Society, a member of the Architectural Institute of Scotland, an associate of the Linnean Society of London, and a fellow of the Royal Physical Society of Edinburgh and the Royal Scottish Society of Arts.

M'Intosh had a remarkable career during which he worked for European royalty and the aristocracy on estates where finance for gardening projects was virtually unlimited. However, he always showed himself generous with his knowledge and had the ability to write practical books from which a wide range of landowners and gardeners, both professional and amateur, could benefit. The published reviews of his books showed the affection, respect, and esteem in which he was held, as did the wide support for his testimonial, which referred to the help he quietly gave to other members of his profession. He died at his home, Newcome Villa, Murrayfield, Edinburgh, on 9 January 1864.

PETER D. A. BOYD

**Sources** *Gardeners' Chronicle* (1864), 50 · *Proceedings of the Linnean Society of London* (1863–4), xlii–xliii · *Prospectus of a testimonial to be presented to Charles M'Intosh, head gardener to the duke of Buccleuch, and author of the Practical Gardener, etc. 24th Nov. 1851* [copy in Royal Botanic Garden, Edinburgh] · B. Elliott, *Victorian gardens* (1986) · bap. reg. Scot., Fowlis Wester · census returns, 1851, 1861 · Desmond, *Botanists*

**Likenesses** portrait, Carnegie Mellon University, Pittsburgh, Hunt Library [*see illus.*]

**Wealth at death** £1071 7*s*. 0*d*.: confirmation, 28 March 1864, *CCI*

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Peter D. A. Boyd, ‘M'Intosh, Charles (1794–1864)’, *Oxford Dictionary of National Biography*, Oxford University Press, May 2009; online edn, Oct 2009 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/96826, accessed 13 Nov 2014]

Charles M'Intosh (1794–1864): doi:10.1093/ref:odnb/96826

threads have rested, or have branched and burrowed into the substance of the walls, cavities or depressions are formed, which assume, according to circumstances, various characters. Hence in some cases the cell walls, after the Fungus threads themselves have entirely vanished, appear under the form of a spongy network, in others crystal-shaped impressions are left, while occasionally the depressions are spiral. The most easy passage from cell to cell is afforded by the punctures through the lining membrane which supply a means of communication with neighbouring cells, and in this case should the thread chance to branch within the puncture, we have extraordinary dilatations which have hitherto been considered as peculiarly abnormal forms, without any suspicion of their real origin.

By an ingenious manipulation our author has been enabled to examine microscopically certain conditions of decaying wood, of which hitherto it has been impossible to make clean sections from their friable nature.* And even in cases of that chemical dry-rot which consists in a slow combustion, known under the name of Eremacausis, he has found that during some part of the process fungous growths have been at work. He finds even traces of the same thing in fossil woods, a fact of which Mr. ROBERT BROWN was to a certain extent cognisant, as he informed us many years ago. In true dry-rot the whole effect is not due to the penetration of the threads, which are generally very superficial, but something depends on a specific action, and more probably on the peculiar faculty which Merulius lacrymans has of attracting moisture. Indeed, in every case a certain quantity of moisture is absolutely necessary for the development of the fungous threads, and their penetration into the contiguous tissues.

It appeared from Herr SCHACHT'S observations—a fact indeed which was ascertained before—that where the fungous threads are dark, and if we may so say carbonised, they are far less fugacious than when they are quite free from colour. Accordingly in certain cases where the spores are dark brown, and the threads white, the former are left behind in the cells when the latter have completely vanished.

We have of course been able to give merely a slight sketch of the memoir, and it may be acceptable to many of our readers to have the author's conclusions from the whole of his observations literally translated, as the Journal in which they appear is one which has not an extensive circulation in this country, notwithstanding the extreme value of many of its papers.

1. Besides true parasitic Fungi, others which live on decomposing substances, penetrate the dying or dead tissues of plants, and destroy them more or less completely. They are the almost universal companions of decay, and require for their development above all things moisture and oxygen.

2. These Fungi exercise a peculiar chemical influence on the cells of plants and their contents, acting either directly or indirectly. Starch, cellulose, and woody lining are dissolved by their chemical action. Both cellulose and lignine vanish together from the indurated cells, while on the contrary the intercellular substance is seldom if ever affected.

3. Cavities or canals arise by the direct contact of the fungous threads in the starch grains and thickened linings of the cells, as also complete perforation of the walls. The fissure-shaped crystalloid cavities in the cell lining of the bast-cells of Caryota, and the woody tissue of Hernandia, which were formerly considered as peculiar forms of cell punctures, are due to the action of fungous threads.

4. The dry-rot Fungus acts indirectly on the wood, whose cells are saturated with its juice, and in consequence lose their lignine and cellulose, though their walls suffer no corrosion.

5. The different forms of decay in wood are accompanied by Fungi which either completely destroy the tissue or alter its nature so much by the abstraction of the cellulose and lignine, that it becomes loose and friable. Fungi induce the rapid destruction of decaying wood.

6. The species of Fungus which induces destruction, is not always distinguishable, since fructification is not always present, and the threads of mycelium in the same Fungus are subject to considerable variations in the length and breadth of their articulations.

7. The brown fungous threads alone resist destruction for a considerable time, and like the brown envelope of the spores of the same Fungus are little if at all affected by concentrated sulphuric acid; the colourless threads, on the contrary, are extremely fugitive, and are frequently no longer present in the wood, though the channels which they have bored, and the more persistent spores when brown, give evidence of their former existence. *M. J. B.*

* A small portion of the wood is boiled over a spirit lamp for a short time in a solution of pure gelatine, and then suffered to dry, when fine slices may be obtained, which may easily be divested of their glue by immersion in warm water.

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WE regret to have to record the loss of a veteran in the ranks of Horticulturists in the person of Mr. CHARLES MCINTOSH, who died in his 70th year, at his residence, Newcome Villa, Murrayfield, near Edinburgh, on the morning of the 9th inst. For some months he had been under medical treatment, and it would appear that he never completely rallied from the effects of a surgical operation, which it was necessary he should undergo some time since. He will be remembered not only as a gardener who during a long life had occupied a prominent position in the horticultural world, and who had in the course of it acquired a varied and extensive fund of information in all departments of horticulture; but also as one who had contributed largely to the literature, and through his writings to the scientific advancement of the profession; and, further, as the genial, kindly, unselfish, and warm-heated friend of a wide circle of professional associates and acquaintances.

Mr. MCINTOSH was born at Abercairney in Perthshire, in August, 1794. He was educated at Maderty, under Dr. MALCOLM; and after acting for some time under his father at Abercairney, he succeeded him in the charge of the gardens there, and afterwards removed to undertake the management of those of Taymouth Castle, the seat of the Marquis of BREADALBANE. While still young he left for the south, and was engaged as gardener to Sir THOMAS BARING, Bart., at Stratton Park, Hampshire, whence we find him in 1825 contributing to the first volume of "LOUDON'S Gardeners' Magazine," a description of an extremely useful and novel form of Orange tub. After leaving Stratton Park he was engaged under Mr. HORNER in laying out and planting the grounds attached to the Colosseum in the Regent's Park, then newly built. His intelligence and energy recommended him to the notice of Prince LEOPOLD, and at Claremont he resided for many years, during which period he effected very considerable improvements in the gardens and grounds. After the accession of Prince LEOPOLD to the Belgian throne, Mr. MCINTOSH was employed by the KING, whose confidence he possessed, not only to superintend the Royal Gardens at Claremont, but also to remodel those at Laecken, of which he for some time had charge. While filling this position at Claremont, Mr. MCINTOSH had many opportunities of meeting with the Princess VICTORIA, now our gracious QUEEN; and on more than one occasion HER MAJESTY has shown him kindnesses which are, or can be, rarely extended to any subject. In 1838, Mr. MCINTOSH returned to Scotland to take the management of the Duke of BUCCLEUCH'S gardens at Dalkeith; and it was he who planned the magnificent grounds and conservatories which form such an attraction to the Palace. After a period of nearly 20 years spent as head gardener to the DUKE, Mr. MCINTOSH resigned his appointment to become a landscape gardener and garden architect on his own account, since which time he has been engaged in beautifying the villa residences of many citizens, and the gardens and parks of many of the gentry and nobility of the country, his advice being sought not only in Scotland but in England. Prior to his departure from Dalkeith, Mr. MCINTOSH was presented by 600 subscribers with a handsome testimonial, consisting of a tea service and purse, the value of which was 325*l.*, in token of the eminent services he had rendered to horticultural science.

Mr. MCINTOSH was a voluminous writer, and his publications upon the several branches of the profession are numerous. Those however by which he will be best and most favourably known, are the *Practical Gardener*, published many years ago, and of which several editions have appeared; *The Greenhouse*, and *The Orchard and Fruit Garden*, of more recent date; and the *Book of the Garden*, published about 10 years since, in two bulky octavo volumes, recording the results of modern practice, and forming the most recent of garden encyclopædias. He was also a frequent contributor to the *Gardeners' Magazine*, *Paxton's Magazine of Botany*, and the *Gardeners' Chronicle*; and was connected with the periodical horticultural and agricultural literature of the northern metropolis, up to the time of his death. The horticultural department of the *Scottish Farmer* has been conducted by him from its commencement three years ago. He was a corresponding member of the Royal Caledonian Horticultural Society, of the Royal Horticultural Society, and of the Massachusetts Horticultural Society; a member of the Architectural Institute of Scotland, an A.L.S, F.R.P.S., and F.R.S.S.A.

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WE return to-day to the subject of the cultivation of exotic fruits in our English gardens. It is very instructive to mark the geographical distribution of the fruits of the earth. The Cocoa-nut, as we have already observed, prefers a situation near the sea-shore, in addition to the heat of the tropics. The Mangosteen grows most luxuriantly on the Islands of the Eastern Archipelago, such as Borneo, Java, Singapore, &c.—places almost under the line, where the seasons vary but little throughout the year. It is always summer there, vegetation is evergreen, and growing and cold or dry seasons are almost unknown. The Mangosteen evidently requires a climate of this nature, and is consequently very difficult to manage in other tropical countries, like Southern India for example, which are subject to cool and hot, and wet and dry seasons. The Mango is much less exacting in its requirements than the Mangosteen. It is cultivated over a much greater space of latitude, and in places where the temperature and seasons are very variable. It is had in perfection in the Philippine Islands, and at Bombay, as well as over a great portion of Southern India.

The class of fruits with requirements like those of the Orange prefer a more temperate climate than the Mangosteen or even the Mango. Places with a temperature and seasons like Southern China, the south of Europe, the north of Africa, the Azores, and the islands in the Mediterranean, are best suited for this class of fruits. Southern China is the home of the Orange, the Lee-chee, the Longan, and the Wampee. Their cultivation extends northwards as far as the River Min, or to about latitude 26° north. In this part of the country the winters are comparatively mild, frost and snow are almost unknown, unless upon the tops of the highest hills. The cultivation of these fruits does not extend further to the northward. Two small kinds of Oranges very like the Tangierine, and the Kumquat (Citrus japonica) are, however, an exception to this rule.

Beyond the region we have named, and further north, another class of fruits is met with, one which requires a different climate again, namely, a summer of equal warmth but a colder winter. The Peach, the Loquat, the Yangmae (Myrica sapida var.), and the Vine, together with the species of Citrus above named, occupy this second belt of latitude, say from 25° to 35°; some of them, such as the Vine and the Peach, going even further north, while others do not go quite so far. And we may remark here, that between these degrees of latitude in that part of Asia our common English fruits, such as Apples and Pears, do not flourish, and where they exist at all, they are almost worthless.

These then are the natural conditions under which the various kinds of exotic fruits we have named are placed in the countries to which they are indigenous, or in which they are successfully cultivated; and we may fairly assume that if we can supply them, in an artificial way, with the same temperature, seasons, and soil, our efforts will have a fair chance of being successful. But if we are ignorant of, or if we disregard, the natural requirements of such fruit trees; if, for example, we keep forcing and steaming a plant all the year round, when it naturally requires a season of rest and repose, need we wonder that the tree remains barren, and eventually becomes sickly and stunted in condition. Or take another case, which, we may remark, is a very common one; suppose our plant requires a higher summer temperature than we are favoured with in this country to enable it to ripen its wood and lay up a store of nourishment, and we simply give it as much as we give to our indigenous fruit trees, can we feel any surprise if it remains unfruitful?

Such being, as we believe, the theory of a successful cultivation of exotic fruits, we will now endeavour to show how it may be practically applied. Leaving fruit trees which are purely tropical on one side for the present, we shall confine our observations to the second class we have mentioned, which is represented by the Orange, the Lee-chee, the Longan, and the Wampee. What,

feathered, Eclipse and seedling. 3d, Mr. D. Barber, Stanton-le-Dale. Two other prizes were awarded.

*Six Dissimilar Tulips, one Feathered and one Flamed, of each class.*—The Rev. F. D. Horner was again 1st, with bizarre, flamed, Sir J. Paxton; feathered, Masterpiece; rose, flamed, Mabel; and feathered, Nanny Gibson; byblœmen, flamed, Talisman; and feathered, Mrs. Cooper. 2d, S. Barlow, Esq., J.P., Stakehill House, Castleton, with bizarre, flamed, Sir J. Paxton; feathered, General Grant; rose. flamed, Mabel; feathered, Modesty; byblœmen, flamed, Carbuncld, remarkably fine, and thought by some to be the best flamed flower in the show, and an unknown feathered. Four other prizes were awarded. There followed a similar class for half-guinea subscribers only, and the 1st went to Mr. W. Prescott, of Lowton—a district of Lancashire that appears to be furnishing a good contingent of Tulip growers—who had good blooms of bizarre, flamed, Sir J. Paxton; and feathered, Masterpiece; rose, flamed, Aglaia; and feathered, Industry; byblœmen, flamed, Talisman; and feathered, Adonis. 2d, Mr. R. Woolfenden, Royton, with bizarre, flamed, Excelsior; and feathered, Masterpiece; rose, flamed, Mabel; feathered, Industry; byblœmen, flamed, Talisman; and feathered, Mrs. Jackson, with its feather of glossy raven's wing.

*Three Feathered Tulips.*—In this class there were ten competitors, and Mr. Alderman Woolley was placed 1st with bizarre, Masterpiece; rose, Alice; and byblœmen, seedling. 2d, the Rev. F. D. Horner, with bizarre, Royal Sovereign; rose, Modesty; and byblœmen, Mrs. Cooper. Four other prizes were awarded.

*Three Flamed Flowers.*—In this class there were seven competitors, and the Rev. F. D. Horner was 1st, with bizarre, Sir J. Paxton; rose, Lady Sefton; and byblœmen, Talisman. 2d, S. Barlow, Esq., J.P., with bizarre, Sir J. Paxton; rose, Chancellor; and byblœmen, Aglaia.

*One Feathered and one Flamed Flower; for maiden growers only.*—Mr. T. Simpson was 1st with bizarre, flamed, Sir J. Paxton, and bizarre, feathered, Masterpiece. 2d, Mr. Isaac Ilesford, with bizarre, feathered, Lord Lilford, and byblœmen, flamed, Adonis. Next came a similar class, open to all, in which there were twelve competitors. Mr. Alderman Woolley was 1st, with bizarre, flamed, Sir J. Paxton; and byblœmen, feathered. seedling, in the way of King of the Universe. 2d, the Rev. F. D. Horner, with bizarre, flamed, Dr. Hardy; and bizarre, feathered, Masterpiece. Four additional prizes were awarded.

*Single blooms.*—There were, as usual, a large number for the judges to select from, and ten prizes were awarded in each. In the class for bizarre, feathered, S. Barlow, Esq., was 1st, with William Wilson, and 2d with Garibaldi. The best feathered rose was Heroine, shown by Mr. Moorhouse; Mr. D. Barber being 2d, with Industry. Mrs. Lomax and Julia Farnese were also well shown.

*Feathered Byblœmen.*—The best was a finely marked and pure seedling, shown by Mr. Woolley; Mr. W. Dymock being 2d, with a seedling, very fine and promising. Talisman, Mrs. Jackson, Violet Amiable, and Adonis were also shown. With flamed bizarre Mr. D. Barber was 1st, with Sir J. Paxton; and 2d with the same. Dr. Hutchens, Orion, Duke of Devonshire, San Jo, and Pilot also gained prizes.

*Flamed Rose.*—The best was Mabel, shown in good condition by S. Barlow, Esq.; Mr. H. Housley being 2d, with Annie McGregor. Aglaia, Little Rose, Lady Sefton, and Mrs. Lomax were also well shown.

*Flamed Byblœmen.*—The best was Talisman, from the Rev. F. D. Horner; Mr. Thurston being 2d, with Adonis. Lady Hardwicke, Bessie, Lord Denman, and Duchess of Sutherland also took prizes.

*Premier Rectified Tulips.*—The premier feathered Tulip was a seedling shown by Mr. D. Woolley, a well-marked byblœmen in the way of John Hart, and probably one of Mr. W. Dymock's seedlings. The premier flamed Tulip was bizarre Sir Joseph Paxton, in the Rev. F. D. Horner's winning stand of twelve blooms.

*Breeder Tulips.*—These very attractive self-coloured and shaded flowers were as usual in strong force; and they may be said to range in colour from the dark, almost black mahogany of the bizarre breeders to the pale silvery-mauve and grey of the byblœmen class. It may be stated that when a breeder Tulip rectifies or breaks into character the breeder colour does not take a new form, but is lifted off altogether and an entirely new dress appears. On this occasion S. Barlow, Esq., one of whose strong points is the breeder class, was unable to show to any extent, his flowers not being yet in general bloom.

*Six Breeders.*—In this class five stands competed, the Rev. F. D. Horner being 1st, with bizarres, Ariosto and Sir J. Paxton; roses, Miss Burdett Coutts and Thomas Parker; byblœmens, Alice Grey and Glory of Stakehill; 2d, Mr. J. H. Wood, with bizarres. William Lea and Horatio; roses, Mabel and Industry; byblœmens, Alice Grey and Boardman's No. 1, which was regarded as identical with Mrs. Cooper.

*Three Blooms.*—For these twelve stands competed, and the Rev. F. D. Horner was again 1st with bizarre, Sir J. Paxton; rose, Thomas Parker; and byblœmen, Alice Grey. 2d, Mr. R Woolfenden, with bizarre, William Lea; rose, Pretty Jane; and byblœmen, Alice Grey.

*Miscellaneous.*—As is usual, a large number of breeders was staged in the classes. The best bizarre breeder was Lea's No. 2, from Mr. Woolfenden; Mr. Prescott being 2d with Sulphur. Some good seedlings were shown by Messrs. Woolley and Thurston. Mr. Thurston had the best rose breeder in Lord Derby, very fine; Mr. Woolley being 2d with Mabel. Seedling C. Grosvenor, Industry, and Miss B. Coutts, were also well shown. The Rev. F. D. Horner had the best bylœmen breeder in Beauty of Litchurch, Mr. Woolfenden being 2d with Alice Grey.

*Premier Breeder.*—This was bizarre William Lea, shown by Mr. R. Woolfenden in his 2d prize three blooms.

## The Hardy Fruit Garden.

General Work.—The chief operation in this department for the present is vigilance in looking sharply after aphides, which are very troublesome during June. Apply the remedies previously advised; and examine the young shoots of Apricots frequently for the maggot, keeping the latter in check by pinching and removal of the points. Continue to examine the Gooseberry bushes for the Gooseberry caterpillar; these put in an appearance here some few days since. Shaking the bushes sharply and smashing the fallen insects, aided by hand-picking, are the surest means of ridding the bushes. The fruits of these will soon be large enough for bottling purposes, Warrington being the most suitable, and of which a larger proportion of bushes should be grown than of other varieties, it being also one of the best for dessert purposes. I find the large Lancashire varieties the most suitable for early supply and for culinary purposes. In many districts Currants, as soon as they attain any size, are taken by the birds, and when this is the case the trees should be immediately netted over. The disbudding of Peaches and Nectarines should now be almost completed, the fruit also should receive another thinning, and, where well advanced, a final one. Owing to the heavy rainfall experienced of late, but little in the way of watering will require to be done. Still, continue to have the soil stirred with the Dutch hoe, especially amongst bush fruit in the quarters, and on borders that have not been mulched. *E. Ward, Hewell, Bromsgrove.*

## The Kitchen Garden.

Celery Planting.—The planting out of Celery from this time onwards will need attention, and should be proceeded with at intervals, as the plants become ready. The main crop for the season should be prepared for putting out into trenches from the middle to the end of the month; planting after that date should be limited and should depend on the special requirements of the place. If the trenches have already been thrown out, the manure can be dug in as the planting proceeds. Fine soil is essential for earthing up with, so that where the staple is not satisfactory, means should be used to render it so, by frequent forkings, &c., or if necessary, by additional soil. Before planting, remove any outer leaves that are small and deformed, also any suckers that have made their appearance, and transplant carefully, with a good ball of earth attached, giving sufficient water to thoroughly settle the plants in their places.

*General Work.*—Prick out from the seed beds on to other borders, the needful quantities of winter stuffs, such as Kale, Savoys, and Broccoli, and continue to plant out in the quarters some more Brussels Sprouts, also a good breadth of Snow's Broccoli for late autumn use. Keep the Dutch hoe constantly at work betwixt growing crops, and earth-up advancing ones of Cauliflower, Cabbage, &c. Give water when required in the evening to all freshly planted subjects. Lettuces, Radishes, and all kinds of salading require frequent and copious waterings in dry weather.

*Mushroom Beds.*—The temperature of the Mushroom-house must now be kept as low as possible, damping the walls, paths, &c., night and morning, and ventilating abundantly especially on warm moist nights, when all doors, windows, &c., may be allowed to remain open. *John Austen, Witley Court.*

## Law Notes.

### MRS. FLORA CAMPBELL *v.* THE CALEDONIAN RAILWAY COMPANY.

As already reported (see p. 652) this case was heard before the arbiters, who issued proposed findings, and at the instance of the procurators of both parties a day was fixed for debate before the final findings were pronounced. The only alteration in the award was in an item for "loss and damage during building operations," which was reduced £6 10*s*., making the full compensation awarded £643 16*s*. instead of £650 6*s*., as in the proposed findings, which thus became the final decision of the Court of Arbiters. One item there was a long and interesting debate upon—as to the loss of water from a well, drained through the cutting operations of the contractor for the railway. It appears from instances on record that if the owner of a portion of ground, be it little or be it big, has his water cut away from him by a neighbouring proprietor who may sink a well in his grounds, say, at a lower level, and cut his neighbours supply right away, the party aggrieved has no case against his neighbour. In the case, however, in question, Professor Robertson held that the Caledonian Railway Company, not only in so far as their statutory powers were concerned, but in cutting through the centre of the tenant's occupancy, were not in a position to be relieved from consequential damage in the course of their operations, and that the damages therefore fixed by the arbiters must be included in the general compensation.

The parties engaged in giving evidence in the case were:—For the claimant, Mr. Jamieson, market gardener, Rothesay, and Mr. M. Campbell, market gardener, High Blantyre; for the Caledonian Railway Company, Mr. John Lamont, nurseryman, Edinburgh, and Mr. James Pinkerton, Bazaar, Glasgow. The agents for the claimant and the Railway Company respectively were Mr. R. B. Shearer, Greenock, and Mr. H. B. Neaves, Glasgow; and the clerk in the reference was Mr. John Leiper Gammill, Glasgow.

## Obituary.

Archibald McIntyre, late Superintendent, Victoria Park, London, whose death on the 4th inst., in his fifty-ninth year, is announced, was born October 19, 1828, at Netherby, near Carlisle. His father was then gardener to the late Mr. Hodgson, Clerk of the Peace. At an early age his father removed to Warwick Bridge, the seat of the late P. Dixon, Esq., where young McIntyre served an apprenticeship to him. From that time he was for a period with Messrs. Little & Ballantyne, well known nurserymen in Carlisle. From there he went southwards, and for a couple of years worked as second in command with Mr. Burns, then with the Marquis of Aylesbury. Mr. McIntyre was then appointed from the above position to that of Head Gardener to the Earl of Clare, of Mount Shannon, near Limerick, where he remained nearly eleven years, or until the death of the Earl. Mr. McIntyre then came to London, and for a time was outdoor foreman in the Royal Gardens, Kew, where he acquired a good practical knowledge of Conifers—a circumstance which doubtless led to his subsequent appointment at Pampisford, Cambridge-

shire, the seat of the late W. Parker Hamond, Esq., which he transformed from a rough meadow to a place of beauty, and where he took a prominent part in getting together and planting the magnificent collections of Conifers for which that place is famous, We next find Mr. McIntyre occupying the position of Superintendent of Victoria and Greenwich Parks—a post he held for about thirteen years, and from which, through ill-health, he was compelled to retire. Mr. McIntyre's doings in this last position are well known to the gardening world as eminently successful.

# THE WEATHER.

## THE PAST WEEK.

THE following summary record of the weather for the week ending June 6, is furnished from the Meteorological Office:—

"The *weather* continued cloudy or dull generally during the earlier part of the period, with some rain at most of the English and Irish stations, but drier conditions in Scotland. During June 2 and 3 the rainfall in most parts of England was heavy and continuous; at Lutterworth snow fell during the early hours of the latter day. As the week drew towards the close the weather in England improved considerably, while in Scotland it became unsettled and showery.

"The *temperature* has been 1° above the mean in 'England, S.,' and about equal to its normal value in the south of Ireland, the north and west of Scotland, and in the east of England, but in all other districts it has continued below, the deficit ranging from 1° to 2°. The highest of the maxima, which were generally recorded either on the 5th or 6th, varied from 65° in the 'Channel Islands' to 73° in 'England, N.E.,' and 76° in 'Ireland, N.' The lowest of the minima, which were registered on irregular dates, varied from 33° in 'Scotland, E.,' 34° in 'England, N.W.,' and 35° in 'Scotland, W.,' to 43° in 'England, E.,' and 'England, S.,' and to 47° in the 'Channel Islands.'

"The *rainfall* has been more than the mean over central, south and north-west of England, as well as in the 'Channel Islands,' but less in all other districts.

"*Bright sunshine* shows an increase on that recorded last week over England, but a decrease at most of the Irish and Scotch stations; it has still been very deficient generally, the percentage of the possible amount of duration ranging from 16° in 'Scotland, N.,' and 17° in the 'Midland Counties,' to 35° in the 'Channel Islands,' 36 in 'England, N.W.,' and 39° in 'Scotland, E.'"

[Accumulated temperature indicates the combined amount and duration of the excess or defect of temperature above or below 32° F. for the period named, and is expressed in Day-degrees—a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| DISTRICTS. | RAINFALL. More or less than the Mean for the Week. | RAINFALL. No. of Rainy Days since Jan. 4, 1887. | RAINFALL. Total Fall since Jan. 4, 1887. | BRIGHT SUNSHINE. Percentage of possible duration for the Week. | BRIGHT SUNSHINE. Percentage of possible Duration since Jan. 4, 1887. |
|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | Tenths of Inch. | | Ins. | | |
| 0. SCOTLAND, N. ... | 3 less | 91 | 16.2 | 16 | 22 |
| 1. SCOTLAND, E. ... | 2 less | 70 | 8.6 | 39 | 32 |
| 2. ENGLAND, N.E. ... | 3 less | 69 | 6.5 | 28 | 29 |
| 3. ENGLAND, E. ... | 1 less | 66 | 7.3 | 33 | 34 |
| 4. MIDLAND COS. ... | 3 more | 64 | 8.0 | 17 | 29 |
| 5. ENGLAND, S. ... | 6 more | 64 | 8.1 | 24 | 32 |
| Principal Grazing, &c., Districts. | | | | | |
| 6. SCOTLAND, W. ... | 1 less | 74 | 14.9 | 22 | 32 |
| 7. ENGLAND, N.W. ... | 2 more | 62 | 9.7 | 36 | 33 |
| 8. ENGLAND, S.W. ... | 1 less | 66 | 8.9 | 20 | 39 |
| 9. IRELAND, N. ... | 2 less | 72 | 11.2 | 27 | 33 |
| 10. IRELAND, S. ... | 1 less | 64 | 10.8 | 23 | 40 |
| — CHANNEL ISLANDS | 2 more | 75 | 8.3 | 35 | 45 |

MEAN TEMPERATURE OBSERVED AT CHISWICK DURING THE WEEK ENDING JUNE 18. (AVERAGE OF THIRTY-THREE YEARS.)

| | | | |
|---|---|---|---|
| June 12 ... ... ... | 60°.4 | June 16 ... ... ... | 60°.9 |
| „ 13 ... ... ... | 60°.5 | „ 17 ... ... ... | 61°.1 |
| „ 14 ... ... ... | 60°.6 | „ 18 ... ... ... | 61°.2 |
| „ 15 ... ... ... | 60°.7 | Mean for the week ... | 60°.8 |

| DISTRICTS. | TEMPERATURE. Above or below the Mean for the week ending June 6 | TEMPERATURE. ACCUMULATED. Above 42° for the Week. | TEMPERATURE. ACCUMULATED. Below 42° for the Week. | TEMPERATURE. ACCUMULATED. Above 42° difference from Mean since Jan. 4, 1887. | TEMPERATURE. ACCUMULATED. Below 42° difference from Mean since Jan. 4, 1887. |
|---|---|---|---|---|---|
| Principal Wheat-producing Districts. | ° | Day-deg. | Day-deg. | Day-deg. | Day-deg. |
| 0. SCOTLAND, N. ... | 0 (aver.) | 59 | 0 | + 59 | + 39 |
| 1. SCOTLAND, E. ... | 1 below | 65 | 0 | + 57 | + 42 |
| 2. ENGLAND, N.E. ... | 2 below | 64 | 0 | — 64 | + 82 |
| 3. ENGLAND, E. ... | 0 (aver.) | 92 | 0 | — 143 | + 168 |
| 4. MIDLAND COS. ... | 2 below | 82 | 0 | — 139 | + 166 |
| 5. ENGLAND, S. ... | 1 below | 90 | 0 | — 138 | + 151 |
| Principal Grazing, &c., Districts. | | | | | |
| 6. SCOTLAND, W. ... | 0 (aver.) | 76 | 0 | — 2 | + 47 |
| 7. ENGLAND, N.W. ... | 1 below | 78 | 0 | — 99 | + 118 |
| 8. ENGLAND, S.W. ... | 1 below | 90 | 0 | — 105 | + 172 |
| 9. IRELAND, N. ... | 1 above | 92 | 0 | + 28 | + 23 |
| 10. IRELAND, S. ... | 0 (aver.) | 90 | 0 | — 10 | + 97 |
| — CHANNEL ISLANDS | 1 below | 95 | 0 | — 175 | + 177 |

# NOTICES TO CORRESPONDENTS.

APPOINTMENT: *E. C.* Many thanks; there is no vacancy.

BEETLE POISON: *T. C.* This shall be tried and reported on.

BERLIN: *E.* The word "nominated" was correctly used; it does not necessarily mean "appointed."

CAMPANULA VAN HOUTTEI×: *B.* This is a hybrid raised by the late Dr. Rodigas, between C. nobilis and C. macrantha. Owing to the way in which the name is written, and the usual absence of all indication of its hybrid character, this plant occasions much labour in vain and loss of time in searching through botanical lists. Such names should never be written without the sign of hybridity (×). Better still would it have been to have said and written simply Campanula, Van Houtte.

CORRECTION.—At p. 732, middle column, for "British Temple," read British Tempe.

CUCUMBER PLANTS: *Z.* Your plants have the too common Cucumber disease. Clear out; plant anew, using other soil, and manure from a fresh source.—*Old Subscriber.* The rotting of the fruits points to something being wrong at the root, probably due to too much or too little heat. You give no particulars of management, so we can but guess.

GRAPES: *Inquirer.* Shanking of the berries has begun. You can do but little now, as it is more a root trouble than anything else. Do not overcrop, or rob the Vines of much of their foliage. If the roots are at a great depth from the surface, take off the soil almost down to them, so that the sun-heat may reach the lower stratum of the border; the superincumbent mass of soil does no good whatever, and keeps the roots in a cold medium.

GLOXINIAS: *O. & M.* Your flowers are evidently taken from robust plants, but were in such a bruised state on arrival, that no opinion as to their merits can be formed.

LILY OF VALLEY FROM KENTISH TOWN: *P. M.* Very good flowers and foliage for any part of either town or country.

MANCHESTER SHOW (ADDENDUM).—Messrs. W. Wood and Son's special award of a Silver Medal "for the best dish of Strawberries" at the above show last week was made to Mr. Chuck, gardener to P. Thelluson, Esq., Brodsworth Hall, Doncaster.

MELON PLANTS OUT OF HEALTH: *T. L.* We cannot explain the sudden loss of vigour in the tips of the young Melon plants. There is no fungus or "disease"; the arrest of vigour is caused by something amiss in the mode of culture. Without being on the spot we can offer no better explanation.

NAMES OF FRUITS: *A. B.* It is not possible to determine, with any certainty, the name of an Apple at this time of year. Send your fruit again next autumn.

NAMES OF PLANTS: *Andrew Warne.* Hedera Rœgneriana.—*W. Green.* 1, Dendrobium calceolus; 2, D. Paxtoni.—*Amateur.* The specimens were all withered. 1, Perhaps the Douglas Fir; 2, Abies nobilis; others not recognisable.—*H. G.* Candollea cuneiformis.—*A. G.* Frond of a seedling Aspidium falcatum.—*W. L.* 1, Exochorda grandiflora; 2, Staphylea pinnata, the Bladder-nut.—*M. O. M.* We cannot undertake to name florists' forms of plants.—*D. E.* 1, Prunus Padus; 2, Spiræa Thunbergi; 3. S. prunifolia, fl.-pl.; 4, one of the numerous forms of the very variable Berberis vulgaris.

NARCISSUS: *A. Wallace.* The specimens sent are those of N. poeticus recurvus; N. p. patellaris has large flat-cupped flowers, and is earlier in blooming.

ORCHIDS: *Leek.* You should apply to some importer. We have forwarded your letter to one.

PÆONIES: *F. M.* Mr. Baker's monograph is contained in our volumes for 1884, vols. xxi. and xxii.

PELARGONIUMS: *W. Cutbush & Son.* The Pelargoniums sent with the Lily from Rangemore had no disease, but were in feeble health, owing, probably to faulty culture.

POLYANTHUS: *W. H.* Jack-in-the-Green. Very good samples. We should be glad if you can spare us one root.

PRIMULA RETICULATA: *W. B.* Many thanks. Do not trouble about it.

PROLIFIED ROSE: *A. E. T.* Your Rose is prolified—that is, the centre of the flower, instead of stopping short, has gone on growing in an irregular manner. We cannot tell the reason. Thanks for the offer of the photograph, of which, however, we could make no use. Send it to an agricultural journal.

ROSES FOR CLIMBING: *Market Gardener.* Other than those you already have are Gloire de Dijon, fawn (there is also a pink form of this); Catherine Mermet, pink; Niphetos, white (fine in bud); Brennus, red; Souvenir de la Malmaison, cream; Cloth of Gold; Madame Berard; Blairei No. 2; Lamarque; and climbing Victor Verdier.

SARRACENIA: *Miss O.* S. crispata is a variety of S. flava. See *Gard. Chron.*, 1881, vol. xv., p. 816.

STRAWBERRIES BITTEN OFF DURING THE NIGHT: *B. J.* Probably the work of mice; set traps or use poison.

TAME ROSE: Please send us your address.

COMMUNICATIONS RECEIVED.—O.—T. Ito.—C. W. D.—J. B.—C. T. D.—J. H. F.—Robertson Munro (too late for insertion).—D., Kew.—J. G. B.—W. G. S.—W. M. B.—H. W. W.—M. Koster & Sons.—J. R. J.—W. J. M.—J. B.—G. N.—W. W.—R. T.—E. J. J.—T. B.—A. D. & S.—G. S.—O. T. (with thanks).—R. D.—P. Pascoe.—T. C.—C. T. D.—M. J. D.—C, van Geert.—F. S.—J. B.—C. M. O.—W. H.—C. W. F.

# MARKETS.

## *COVENT GARDEN, June 9.*

BUSINESS somewhat more brisk, last week's prices being well maintained, with the exception of Peaches, which are reaching us in excess of the demand. *James Webber, Wholesale Apple Market.*

FRUIT.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Apple, ½-sieve ... | 4 0 | 6 0 | Melons, each ... | 1 6 | 3 0 |
| — Nova Scotia, brl. | 8 0 | 12 0 | Peaches, dozen ... | 4 0 | 12 0 |
| Grapes, per lb. ... | 3 0 | 5 0 | Pine-apples, Eng., lb. | 1 0 | 1 6 |
| — Channel Isl., lb. | 2 0 | 3 0 | — St. Michael. each | 3 0 | 8 0 |
| Kent Cobs, 100 lb. ... | 60 0 | ... | Strawberries, per lb. | 1 0 | 3 6 |
| Lemons, per case ... | 12 0 | 21 0 | | | |

street Paisley as Executrix Dative quâ Next of Kin of John M^cIndoe Engineer of 46 Moss-street who died at Paisley 13 June 1887. Sealed.

**M^cINNES or GRIGOR Jane.**

30 November. The Confirmation of the Commissariot of **Elgin** and **Nairn** dated 4 November 1887 of Dr. James Angus Cameron of Firhall Nairnshire Brodie Cruikshank M.D. Nairn and Alexander Cameron Solicitor Elgin as Executors Nominate of Mrs. Jane M^cInnes or Grigor of Larkfield Nairn Widow who died at Nairn 7 October 1887. Sealed.

**M^cINNES John Anderson.**

Personal Estate £8,358 17s. 5d.

26 October. Administration of the Personal Estate of John Anderson M^cInnes late of Brynmynach Barmouth in the County of **Merioneth** Gentleman who died 14 September 1887 at Heath Bank Wallasey in the County of Chester was granted at the **Principal Registry** to John M^cInnes of Heath Bank Gentleman the Father and Next of Kin.

**M^cINNES Thomas.**

Personal Estate £236.

27 September. The Will of Thomas M^cInnes late of Leicester in the County of **Leicester** Solicitor's Clerk who died 18 February 1887 at Leicester was proved at **Leicester** by Mary Ann M^cInnes of College-street Leicester Widow the Relict the sole Executrix.

**M^cINNIS Jane.**

Personal Estate £211 2s. 5d.

8 December. Administration of the Personal Estate of Jane M^cInnis late of Yarm in the County of **York** Widow who died 22 November 1887 at Yarm was granted at **York** to Robert Ramshaw of 38 Dundas-street Middlesbrough in the said County Master Mariner the Brother and one of the Next of Kin.

**M^cINTOSH Alexander.**

Personal Estate £126.

6 April. Administration of the Personal Estate of Alexander M^cIntosh late of 3 Bell-road Hounslow in the County of **Middlesex** who died 23 March 1887 at 3 Bell-road was granted at the **Principal Registry** to Sarah M^cIntosh of 3 Bell-road Widow the Relict.

**M^cINTOSH James.**

30 December. The Confirmation of the Commissariot of **Perthshire** dated 22 December 1887 of John M^cIntosh of Jessie-street Blairgowrie the Brother as Executor Dative quâ one of the Next of Kin of James M^cIntosh Church Officer Blairgowrie who died at Blairgowrie 26 October 1887. Sealed.

**M^cINTYRE Archibald.**

Personal Estate £245 8s.

20 June. Administration of the Personal Estate of Archibald M^cIntyre late of 9 Manor-road Stoke Newingtn in the County of **Middlesex** who died 4 June 1887 at 9 Manor-road was granted at the **Principal Registry** to Margaret M^cIntyre of 9 Manor-road Widow the Relict.

**M^cINTYRE Robert.**

22 December. The Confirmation of the Commissariot of the County of **Edinburgh** dated 10 December 1887 of Peter Morrison Macintyre Advocate Edinburgh the Son as sole Executor Nominate of Robert Macintyre of 12 India-street Edinburgh who died at Edinburgh 21 September 1887. Sealed.

Oxford Dictionary of National Biography

**McNab, James** (1810–1878), *horticulturist and botanist*
by Peter D. A. Boyd
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**McNab, James** (1810–1878), horticulturist and botanist, was born at Richmond, Surrey, on 25 April 1810, the eldest son and second of nine children of William McNab (1780–1848), foreman at the Royal Botanic Gardens, Kew, and his wife, Elizabeth, *née* Whiteman (1777/8–1844). Shortly after his birth the family moved to Scotland when his father became superintendent and curator of the Royal Botanic Garden, Edinburgh. About 1822, at the age of twelve, he started work with his father in the Edinburgh garden, remaining there for twelve years, first as an apprentice, then a journeyman, and later foreman. He also returned to formal academic studies, taking classes in writing, accounts, Latin and elementary Greek, and architectural studies at the Dollar Institution in 1827 and 1828. An intelligent and able young man, he learnt and carried out the routine duties of a gardener and progressed to the preparation of plans of gardens and greenhouses, including the equipment required to heat the latter by steam and hot water. From about 1829 he also acted as either clerk or assistant secretary to Patrick Neill, secretary of the Caledonian Horticultural Society. He also had artistic talents, drawing many of the plants that flowered in the Edinburgh garden from 1829. A number of his paintings were engraved to accompany plant descriptions by Robert Graham, the regius keeper of the garden, in Robert Sweet's *British Flower Garden* and other periodicals during the 1830s. He also produced some illustrations for J. C. Loudon's *Arboretum Britannicum* (1838).

In 1834 McNab was asked by Robert Brown (*c.*1767–1845) to accompany him on a tour of the United States and Canada. Brown was a retired nurseryman from Perth who had been responsible for introducing the swede (‘neeps’) to cultivation in Scotland and breeding the first coloured ‘Double Scotch Roses’, among other accomplishments. McNab kept a journal of the tour, recording the adventures of these two plant explorers in the wilds of North America and the difficulties of travel by sea, land, and river, though only short accounts, including lists of some of the trees and plants observed and collected, were ever published (in, for example, the *Edinburgh Philosophical Journal* for 1835, and *Transactions of the Edinburgh Botanical Society*). The botanic garden benefited from plants and seeds collected during the trip.

In 1835 McNab was appointed curator of the Caledonian Horticultural Society's experimental garden at Inverleith, Edinburgh, where he remained until 1849, landscaping and managing the garden. In a ceremony officiated by Charles Terrot, Scottish Episcopalian bishop of Edinburgh, he married in Edinburgh, on 23 January 1844, Margaret, daughter of Peter Scott; they had a son and five daughters. In 1849 he succeeded his father as curator of the Royal Botanic Garden, Edinburgh, where the regius keeper was John Hutton Balfour, who had succeeded Robert Graham. A temperate plant house was completed in 1858, for which the design of the heating system and the internal arrangement were McNab's. The garden occupied 14 acres, and in 1859 2 acres were added to its western side, landscaped and planted, while in 1864 the old experimental garden ground of 10 acres (which

belonged to the crown) was added to the botanic garden and rearranged by McNab for conifers and other evergreen trees and shrubs. The experimental garden had been separated from the botanic garden by a stone wall, the stones from which were utilized by him to create in 1860 a rock garden of which he was particularly proud. This garden was enlarged in subsequent years and provided 5442 compartments with different aspects and soil mixtures for the cultivation of alpine and dwarf herbaceous plants, proving successful in providing conditions for the cultivation of a wide variety of 'difficult' plants.

McNab was much admired as a cultivator of hardy and tender plants. In 1877 William Robinson described him as being

> among the faithful few who never deserted the beautiful hardy flora of our gardens for the famous red and yellow streaks that sometimes disfigure even our great botanic gardens. His knowledge of these in such a national garden is most precious. It comprises the culture and habits of the plants, in addition to a mere acquaintance with their names and relationships. (*The Garden*, 29 Dec 1877, 16)

Robinson also referred to the 'admirable cultivation and arrangement' shown in the palm house at Edinburgh. 'We must pronounce this the best-managed tropical house (both from the point of view of design, arrangement, and culture) of any in the botanic gardens of the United Kingdom' (ibid.).

McNab was not only an active gardener but also a prolific writer, contributing to a wide range of horticultural and botanical literature including *The Garden* and the *Transactions of the Botanical Society of Edinburgh*. He was one of the original members of the Edinburgh Botanical Society, of which he became president in 1872, and was a corresponding member of several societies in Britain and overseas. He died suddenly at the Royal Botanic Garden, Edinburgh, on 19 November 1878, and was buried in the Warriston cemetery, Edinburgh. His coffin was surmounted with his favourite plants, including various evergreens, camellias, and chrysanthemums, together with wreaths made up of *Cupressus macnabiana* and rosettes of *Saxifraga macnabiana*, plants that had been named in his honour during his life. After his death many of his papers together with herbarium specimens, paintings, and documents of his father William McNab found their way to Ireland through his son William Ramsay McNab who was, by then, professor of botany in the Royal College of Science, Dublin. They were eventually purchased from W. R. McNab's widow for the National Botanic Gardens, Glasnevin, Dublin.

PETER D. A. BOYD

**Sources** C. Byrom, *Caledonian Gardener* (1997), 44–52 · W. Robinson, *The Garden*, 12 (29 Dec 1877), 16 · *Gardeners' Chronicle* (1871), 1033; (1878), 661 · Desmond, *Botanists* · *Journal of Botany* (1878), 382 · H. R. Fletcher and W. H. Brown, *The Royal Botanic Garden, Edinburgh, 1670–1970* (1970) · *Transactions of the Botanical Society* [Edinburgh] (1879), 381–3; 44 (1987), 343–9; 45 (1988), 217–22 · census returns, 1861 · m. reg. Scot.

**Archives** National Botanic Gardens, Glasnevin, Dublin, drawings and plans · Royal Botanic Gardens, Edinburgh, papers

**Likenesses** portrait, Carnegie Mellon University, Pittsburgh, Hunt Library · portrait, repro. in *Gardeners' Chronicle* (1871), 1033 · portrait, repro. in *Gardeners' Chronicle* (1878), 661 · portrait, Royal Horticultural Society, London; repro. in *The glory of the garden: a loan exhibition in association with the Royal Horticultural Society* (1987), 210 · portraits, repro. in Robinson, 'James McNab', *The Garden* (1877), 16 · portraits, repro. in *The Garden* (1878), 459

**Wealth at death** £4656 15*s*. 7*d*.: confirmation, *CCI*

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Peter D. A. Boyd, 'McNab, James (1810–1878)', *Oxford Dictionary of National Biography*, Oxford University Press, May 2009 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/99630, accessed 13 Nov 2014]

James McNab (1810–1878): doi:10.1093/ref:odnb/99630

## DEATH OF JAMES McNAB.

Many of our readers will be very sorry to learn, and it is with great regret we have to announce, that James McNab, long Curator of the Royal Botanic Gardens, Edinburgh, died there last Tuesday. Lately apparently vigorous and in good health, many who knew him will be quite unprepared for the announcement of his death, which is a loss to horticulture, to the Edinburgh garden, and to Scotland, throughout which he was so well known and so greatly esteemed. A more fitting man to be curator of a botanic garden it would be difficult to find, being a great lover of plants and having a full knowledge of them and the essentials of their culture. The Edinburgh garden bore marks of this in many ways—in its rich collections of hardy plants and trees, in its Palms and other indoor plants, and reserve gardens, which were the richest we know of in any public garden. Having early made a good acquaintance with United States and Canadian plants by travelling in these countries, his knowledge of them was of such a kind as to be exceedingly useful to the curator of a botanic garden and to a landscape gardener. For twelve consecutive years before 1834 he served as an apprentice, journeyman, and foreman in the Edinburgh Botanic Gardens with his father. Besides general routine work, his early life was much devoted to the preparing of plans of gardens, greenhouses, heating apparatus by steam and hot-water, as well as in the drawing of many of the plants which flowered in the Edinburgh gardens and nurseries from the year 1829 and onwards. These were figured in the "Botanical Magazine," Sweet's "British Flower Garden," and other works. The year 1834 was spent in travelling in the United States and Canada, and the records of the more interesting plants obtained in this journey are to be found in a series of papers published in the "Edinburgh Philosophical Journal" for 1835, and in the earlier numbers of the "Transactions of the Edinburgh Botanical Society." In 1835 he was appointed Curator of the Caledonian Horticultural Society's Experimental Garden at Inverleith, where, besides the management of the garden, he had much practice in landscape gardening. This situation he held till 1849, when, on the death of his father in December, 1848, he was appointed Curator of the Royal Botanic Garden. At that time the garden contained only fourteen imperial acres. Since then the history of the garden has been one of improvement, of extension, and of progress, largely owing to his work therein. In addition to the extensive practice of gardening, Mr. McNab has often been a contributor to horticultural literature, as his writings, not only in The Garden, but also in the transactions of the Botanical Societies of Edinburgh and elsewhere amply show. He did not, however, confine himself to strictly botanical and horticultural matters; on the contrary, his writings embrace numerous essays on Vegetable Climatology, landscape gardening, and arboriculture, all of which, if gathered together, would form many volumes. He was a corresponding member of several societies, both at home and abroad; also one of the original members of the Edinburgh Botanical Society, established February 8, 1836, to the transactions of which he has been a frequent contributor ever since their commencement. Regretting his loss as one of the most advanced of the true school of gardeners, we have also to regret the loss of a valued contributor, his very last contribution to our columns being a reply to a question on Pandanuses in this issue. His family will have the sympathy in their loss of all who knew him well, and we cannot express a better wish for the Royal Botanic Garden and its collection than that they may always be in the charge of men not unworthy to be successors of James McNab.

The Late James McNab.

Oxford Dictionary of National Biography

**McNab, William** (1780–1848), *horticulturist*
by Peter D. A. Boyd
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**McNab, William** (1780–1848), horticulturist, was born at Knockcavish in the parish of Dailly, Ayrshire, on 12 August 1780, one of twelve children of James McNab, a farmer. He assisted his father on the farm but about 1796, at the age of sixteen, he became a gardening apprentice in the garden of Mr Kennedy of Dunure, at Dalquharran in Carrick. After three years he obtained a situation in the gardens of the earl of Haddington at Tyningham in East Lothian. His character and abilities were quickly recognized and, after only fourteen months, he was recommended to William Aiton for a position at the Royal Botanic Gardens at Kew. He commenced employment there on 12 March 1801, aged twenty, and became foreman in 1803. He gained the approval of George III (who took a special interest in the gardens) not only for his horticultural prowess but also for his willingness to be actively involved with the Kew volunteer infantry, formed, like other volunteer corps at the time, to help repel invasion by the French and subdue civic unrest. The king apparently commented that he had the appearance of a soldier. McNab's correspondence with William Kerr (*d*. 1814), a friend and former foreman at Kew, shows that the Kew gardens benefited from the actions of English privateers against French ships during this period. The king acquired an important collection of plants from South America, intended for the 'National Garden at Paris', through this means. As foreman at Kew, McNab received a salary of 100 guineas per annum, a house, fuel, and candles, together with access to Kew's excellent botanical library. About 1808, while at Kew, he married Elizabeth (1777/8–1844), third daughter of Joseph and Judith Whiteman of London. They had five sons and four daughters.

In 1810 Daniel Rutherford, regius keeper of the Royal Botanic Garden at Edinburgh, asked Sir Joseph Banks to recommend a proper person to take charge of the Edinburgh garden. It had suffered from a succession of superintendents who only stayed a short time or died in post at a relatively young age. William McNab was recommended by Banks, and William Aiton sent a letter of introduction testifying to McNab's qualities as a gardener, and his possession of 'the sincerity and real worth of an honest man'. Even though the financial rewards were lower at Edinburgh (£50 a year with house, fuel, and candles) than at Kew, McNab had been persuaded that there was great potential for development at the garden and personal advancement. He fulfilled his side of the bargain and praise for his work in Edinburgh came from many quarters, Dr Neill remarking in 1812 on McNab's energy in increasing the collection of plants, despite the discouragement of limited funds. McNab's handwritten records of the acquisition of native and exotic plants between 1810 and 1820 are testimony to his work.

Rutherford and McNab pressed for the Edinburgh garden to be moved from its cramped, 5 acre site on Leith Walk, with its dilapidated glasshouses, to a bigger location. In January 1820, following Rutherford's death, and with a large family to support, McNab addressed an impassioned appeal for more resources, and was endorsed by Sir Joseph Banks and William Aiton of Kew, and later by Robert Graham, appointed regius keeper in succession to Rutherford. His salary was

increased to £80 that year, £100 in 1822, and to £150 in 1834. Professor Graham also succeeded in negotiating a new site for the garden at the Rocheid estate at Inverleith. The move to Inverleith was a massive undertaking including the preparation for removal and transfer of mature trees and shrubs (some of them 100 years old) from one site to the other a mile away. MacNab undertook this task between 1820 and 1823, with very few trees and other plants failing to be re-established under his care. As the acknowledged expert in transplanting evergreen trees and shrubs he developed what became known as McNab's transplanting machine. His *Hints on the Planting and General Treatment of Hardy Evergreens in the Climate of Scotland* was published in 1830. The new garden provided new opportunities, including the construction of glasshouses in which to grow tender exotics that had been favourites since his time at Kew. He became a particular expert in the cultivation of ericaceous plants from southern Africa and published his *Treatise on Propagation, Cultivation, and General Treatment of Cape Heaths* in 1832. A genus of ericaceous plants was initially named *Nabea* in his honour (later renamed *Macnabia* Benth). Although he had a love of exotic plants, he maintained an interest in the native flora of Scotland, producing watercolours of specimens in life before pressing and drying them on herbarium sheets. He became an associate of the Linnean Society of London in 1825.

Plants arrived at the Edinburgh garden from all over the world, though the movement of plants and seeds was not exclusively inwards. The Royal Botanic Garden at Edinburgh also supplied other botanic gardens and individuals around the world with plants or collections. McNab's registers and notebooks recording the ‘plants-out’ flow of specimens give an insight into the significance that the garden now had as an international centre. In 1826 the tsar of Russia sent him a diamond ring in acknowledgement of his assistance with acquisition of plants for the imperial botanic garden at St Petersburg.

Despite a forbiddingly austere appearance, William McNab was a well-respected and well-loved man, who accompanied Graham and his students on botanical field excursions into the highlands. A testimonial was raised for him in 1844, resulting in the presentation of £400 in a silver snuff box, along with another snuff box made from the root of a bamboo which he had grown to a height of 40 feet during six months under his care at the botanic garden. The Edinburgh professor Thomas Traill observed: ‘It is owing to him that our conservatories are now so full of the plants of other countries, and it is owing to him that Scotland has attained such a high name for its scientific horticulture’. He died in post at the Royal Botanic Garden at Edinburgh on 1 December 1848 and was buried at the Calton burying ground beside his wife, who had died four years earlier. His eldest son, James McNab, who worked with him in the Edinburgh garden, succeeded him as curator; his third son, Gilbert McNab (1815–1859), qualified as a medical doctor and undertook botanical investigations in Jamaica; and his eldest daughter, Catherine Mary McNab (1809–1857), published *Botany of the Bible* (1850–51). Many of his herbarium specimens were left to his eldest son, and subsequently found their way to Ireland through his grandson William Ramsay McNab.

PETER D. A. BOYD

**Sources** *Gardener's Magazine* (1832), 210–11 · *Gardeners' Chronicle* (1848), 812 · *Cottage Gardener*, 1 (1849), 165–6 · *Botanical Gazette* (1849), 52 · *Chambers' Journal*, 13 (1850), 60–61 · I. B. Balfour, *Notes from the Royal Botanic Garden Edinburgh* (1908) · H. R. Fletcher and W. H. Brown, *The Royal Botanic Garden, Edinburgh, 1670–1970* (1970), 80–90 · Desmond, *Botanists* · M. Hadfield, R. Harling, and L. Highton, *British gardeners: a biographical dictionary* (1980), 199 · E. C. Nelson, ‘William

Ramsay McNab's herbarium in the National Botanic Gardens, Glasnevin', *Glasna*, new ser., 1 (1990), 1–7 · bap. reg. Scot., Dailly · census returns, 1841

**Archives** Royal Botanic Garden, Edinburgh, diaries

**Likenesses** J. Somerville, lithograph, repro. in *Gardeners' Chronicle*, 50 (9 Dec 1848) · portrait, RBG Kew · portraits, Carnegie Mellon University, Pittsburgh, Hunt Library

**Wealth at death** £783 14*s*. 1*d*.

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Peter D. A. Boyd, 'McNab, William (1780–1848)', *Oxford Dictionary of National Biography*, Oxford University Press, May 2009 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/99631, accessed 13 Nov 2014]

William McNab (1780–1848): doi:10.1093/ref:odnb/99631

LGM 1832



| D. PURPU'REA. (The male parent.) | D. HY'BRIDA. (The offspring.) | D. LU'TEA. (The female parent.) |
|---|---|---|
| Large, cernuous. | *Flowers*, medium size, nearly horizontal. | Small, more drooping. |
| More spreading. | *Calyx*, moderately spreading in flower, afterwards connivent. | Less spreading, at length more closed. |
| Broader. | *Sepals*, ovato-lanceolate, the odd one much narrower. | Narrower. |
| More hairy | ——, hairy on the margin. | Less hairy. |
| Purple. | *Corolla*, yellow ground, tinted with red. | Yellow. |

And in this manner through all the parts: and the parts and dissections on one of the plates are displayed in the same three-columned conspective manner. Likenesses and differences are by this mode of arrangement rendered instantly and palpably obvious; and it was anxiety to attain this point which led the able author of *Dendrològ*ia *Británnica* to adopt the peculiar and remotely similar mode of describing in detail which that really meritorious work exhibits. In conclusion, we have only to say, we have had the pleasure of cultivating a hybrid, very similar to that which forms the subject of Professor Henslow's pamphlet, and that that hybrid, like his, was altogether barren of seeds. — *J. D.*

*M'Nab, William*, Superintendent of the Royal Botanic Garden, Edinburgh, A.L.S. C.M.H.S. &c.: Author of "Hints on the Treatment of Hardy Evergreens:" A Treatise on the Propagation, Cultivation, and general Treatment of Cape Heaths, in a Climate where they require Protection during the Winter Months. 8vo, pp. 44, with a beautiful coloured engraving of *Er*ìca aristàta. Clark, Edinburgh; Treuttel and Würtz, London; 1832. 2*s.* 6*d.*

We have read through this pamphlet, and shall offer no analysis of it; for this, besides occupying more space than we can spare, would be only acceptable to cultivators of this charming genus, and every one of these should procure and possess the work. It contains no specious theorising, but is a straightforward narrative of the results of the writer's long and extensive practical experience in his remarkably successful cultivation of this most charming genus.

Mr. M'Nab deserves the hearty thanks of all who are interested in the promotion of floriculture, for having shown so clearly by what simple means the Cape heaths can be grown healthily and vigorously, and therefore satisfactorily. A feeling of misery is ever associated by a sight of sickly exotics; and one tuft of native heather, luxuriating in health and beauty, is a far more pleasing object than a house full of such; but how delightful must be the sight of Mr. M'Nab's collection when the majority of species is in bloom! They seem unafflicted by sickness and debility. "There are," says he, "in the Botanic Garden, at Edinburgh, heaths 8 ft. high, in tubs 3 ft. over; and the plants are both bushy in proportion to their height, and in great vigour; and these, when in flower, are covered with blossoms from the edge of the tubs to the top of the plants. These are, however, the freer-growing kinds, such as *Er*ica Ewer*iàna*, Bonplandi*àna*, *a*biétina, vestìta coccínea, grandiflòra, &c." The book is indeed cheap. — *J. D.*

Since the preceding notice was written, a valued correspondent has supplied the following remarks. They corroborate our own, and also take additional views: —

It may justly be said of Mr. M'Nab, "that he is a man of that stamp that would not write on any department of gardening, unless he could show the good effects of it in his own practice;" a compliment which he is pleased to pay (p. 7.) to Mr. Walter Henderson, gardener at Woodhall. To the justice of this remark the beautiful heaths at the Royal Botanic Gardens of Edinburgh bear ample testimony. From some supposed difficulty in the proper treatment of heaths, that beautiful family of plants has certainly not met with the general encouragement which their splendour, and simple and cheap mode of culture, seem to warrant. The excellent little treatise now before us will, we doubt not, soon prove the means of exciting a taste for, and of extending the culture of, the heaths

of the Cape, " every species of which is beautiful throughout the year, and at every period of its growth, in flower or out of flower, and of every size and age." (p. 6.; quoted from the *Gardener's Magazine*, Vol. I. p. 366.) Mr. M'Nab's method of striking heath cuttings is nearly the same as practised in the Leith Walk Nurseries about the commencement of this century, with this difference, that Mr. M'Nab " very seldom uses bell glasses." These, we recollect, were uniformly then used in striking heaths, and required much attention in " wiping, to prevent any damp from injuring the cuttings." For the directions given as to the general mode of propagation we must refer to the work itself. The soil which Mr. M'Nab " has found Cape heaths thrive best in, is a black peat soil, taken from a dry heath or common which is never overflowed with water. In general it should not be taken off more than 5 or 6 in. deep. It frequently happens that peat earth has sand mixed with it in its original state; but where this is not the case, a quantity of coarse white sand should be procured, and mixed with the earth in the compost ground, to the extent of one fourth or one fifth of the whole." (p. 16.) His mode of shifting, and of *raising* the plant above the level of the pot, is illustrated by a woodcut, and merits attention by the cultivator of green-house plants in pots. What, however, will have a tendency to extend the culture of heaths more than any thing in this excellent little treatise is, an assertion from such high authority, that " heaths require but little fire heat during winter." " I have," he says, " several times had the heaths here in winter without fire heat, when the thermometer out of doors stood at 16° below freezing; but in these cases the house was always shut close; and I have never seen the heaths suffer from this cold. I have had the whole heaths in the house frozen, for days together, so hard, that the pots could not be removed from their places without breaking them, and fresh air constantly admitted at the time, and I have never seen one of them suffer in the smallest degree from it." (p. 31.) We think we do our horticultural readers a service in noticing the merits of this most unassuming and practical treatise. The ladies will observe an elegant drawing of the *Erica* aristàta, at the beginning, by Mr. James M'Nab, the son of the intelligent author, well worthy of the price of the book. — *G. Perthshire.*

*Chandler and Booth's Illustrations and Descriptions of the Camellièæ.* In Imperial 4to Parts, every three months. 7*s.* plain; 10*s.* coloured; and 18*s.* extra-size.

*Part X. for November, contains*

37. Camél*lia* japónica Róss*ii*, Ross's Japanese Camellia. This desirable variety is well described in our Vol. I. p. 211., under the name of " Ross's Camél*lia* glorìosa;" and an interesting biography of the late Mr. Ross himself is given Vol. I. p. 95. " The flowers are generally very large and showy, often measuring 4 in. in diameter." In form they much resemble those of C. japónica élegans, see Vol. VII. p. 343., but in colour they are of a much deeper and darker red. — 38. Camél*lia* japónica Aitòn*i*, Aiton's *large single red* Japanese Camellia. This, " and four others, were raised at the Vauxhall Nursery from seeds contained in a capsule of the Pompone Camellia, and sown in November, 1819. It was named in compliment to Mr. Aiton, the king's gardener, and " is, unquestionably, a very striking variety, and a most valuable one to the cultivator of camellias, on account of its producing seeds more freely than any other kind whatever." — 39. Camél*lia* japónica crassinérvis, Thick-nerved Japanese Camellia, conventionally *Kent's hexangular* Camellia, both from its having first blossomed with William Kent, Esq., when he resided at Clapton, and from its " having been supposed, on its first introduction," which is believed to have been made by Captain Rawes, about 1820, " to be the hexangular variety so much esteemed by the Chinese." In its blossoms only different from the Warratáh in its

in Germany," has manifestly called some oviparous snake by the name of viper, whereas the reptile in question is viviparous. We know that some reptiles are stated to become oviparous in certain localities, though they are viviparous in others; but the author in question is far more likely to have fallen under the very common mistake of believing all snakes to be oviparous, than to have stumbled upon a rare and curious case of the kind alluded to; and here we shall venture to ask a question of a gentleman of the highest authority in such matters, and with whom we would not pretend to dispute on the probability or otherwise of vipers swallowing their young, if he felt confident that they did so. Mr. Waterton has observed, at p. 717, that "he has been much amongst vipers in the South American forests;" but the question at issue turns upon the alleged instinct of the common viper (Pelius berus) alone. If, indeed, it could be shown that any other snake whatever in any other country whatever was possessed of the alleged instinct, there would be no difficulty in admitting the evidence of our native observers to the same fact in the common viper. But it is the very circumstance that no naturalist has ever recorded such an instinct, and that our best observers entirely doubt it, which has made us so very incredulous that we shall not be willing to believe it (as we have already said, p. 542) until "we find professed zoologists have become convinced of the fact in question." Since this discussion arose, we have heard of nothing satisfactory in favour of the fact, and we have seen ample cause for strengthening ourselves in our incredulity. If *true*, it is *passing* strange that no naturalist ever saw the fact; if *untrue*, it is only *ordinarily* strange that such a notion should be so popular. *J. S. H.*

[These remarks have been in type for some weeks, and since they were written various communications on the subject have been received. We can only repeat what we have urged over and over again, that belief is not proof. As an infinite number of 0 0 0 0 make but 0 after all, so do the numerous assertions with which we have been favoured bring 0 conviction to our mind. That observers state what they believe they have seen it would be the height of injustice to deny; the real question is, did they see aright?]

## PRACTICAL HINTS FOR AMATEURS AND SMALL GARDENS.

Carnations and Picotees.—The skilful grower of these favourite flowers will need no instructions from us, knowing, as he does, by past experience, the care demanded to preserve a collection in health during our long winters. But all lovers of Carnations are not adepts in the art of growing them, and for such the following observations are intended. Let it be premised, that if you desire to possess a stock do not purchase now, but wait till the spring. I hope those who grow for sale will not censure this advice too strongly, for while we wish to give every encouragement to the raiser of fine flowers, it must not be at the expense of the purchaser. An inexperienced amateur who should buy a dozen pairs of Carnations in December, would probably lose half of them before March, while the grower of them, knowing their habits, would be able to preserve them without inconvenience. Wise men, who see further than the present moment, will not think their interests ultimately promoted by the public being disgusted with the patronage of their productions, on account of their money and labour being thrown away. On the contrary, florists of integrity and good feeling will be conscious that their own prosperity will go hand in hand with the success of their customers.

Presuming that you have your layers established in small pots, you have to guard principally against damp, by far the most potent enemy with which the Carnation has to contend. In its native places it enjoys the drainage and the dry air of mountains where no mildew can generate; and our attempt must be to assimilate its artificial state to its natural one. Cold does this plant no harm compared with wet. Look at a collection after a damp season, such as we have had lately, and you will find the plants disposed to be sickly, and often covered with blotches, occasioned by a fungus preying on the leaves. Look at the same collection after a keen frosty night, and new life seems to be diffused through the whole. There is not a greater difference between a schoolboy hovering over a fire on a wet half-holiday and the same shivering object enjoying a slide on a frozen river, with bright eyes and ruddy cheeks, than there is between Carnations in wet and in dry cold weather. There is a fine bloom on the leaves of healthy plants, which gladdens the amateur. Let Nature, then, be your instructor in the care you take of these flowers, and let them have all the air you can give them, never shutting them up, except for the purpose of throwing off the wet, when, of course, the sides of the frame, or other covering, should be quite open. Few things do more harm in horticulture than *petting* plants in ways uncongenial with their habits. A friend of ours, who had a meadow, thought he would enter on the sheep trade, and he accordingly bought 20 fine ewes. As winter was coming on, he thought his sheep would need protection, and he paid a couple of sovereigns to build a shed for them. But he was vexed to find his money thrown away; for in the heaviest snows and hardest frosts the sheep preferred the high land of the field to the doubtful protection of the hovel. So is it often with flowers.

Next to damp, vermin must be watched. It is very distressing to find some morning our Carnations nibbled off close, like the shorn head of a workhouse boy. What has evidently been a source of pleasure to some chewing and digesting animal like ourselves gives us extraordinary pain, and we cry out against the equality and fraternity doctrine and practice of the intruder. It matters not to us whether the plants have been gnawed by a field-mouse as interesting as that which Burns immortalised, or by a bullfinch or a robin, like those which Cowper loved to see eating, or by a slug which every one execrates. The effect is equally odious and provoking, and drives sentimentality far away. Let trap or gin, or gun, or soot and ashes, do their work accordingly, that the thieves, whether reptile or winged, or four-footed, may be taught to keep their distance. *H.B.*

## PRESERVATION of ICE by WELLS and STACKS.

It not unfrequently happens that the subterranean wells or caves constructed contiguous to a mansion for the preservation of ice, for use at a future season, are found inefficient for the purpose. An investigation of the causes of such failures would, I imagine, more frequently lead to the discovery of an omission in the system of management of the ice after its introduction than any fault in the construction of the ice-houses.

Section of Ice Stack.—A. Ice; B. Wall of Fern; C. Thatch.

It is generally considered essential to build up the ice to the mouth of the well, and to fill the entrance with loose straw, and finally close the door hermetically. These precautions may be very well for the moment, but they do not provide for an inevitable contingency which results from the melting of the ice, and the consequent introduction of a large volume of that principle most antagonistic to its preservation, viz., air. The rapidity with which ice melts after the stack is once broken into, and thus exposed, is well known to those who have anything to do with ice wells, and this is obviously caused by the increased amount of air allowed by the diminution of the body of ice. The alteration which I recommend under the circumstances above stated, is sufficiently simple; and being found effectual in the case of ice-stacks, built above the surface of the ground, can scarcely fail to prove equally useful within an enclosed receptacle. Instead of filling the well in the manner usually practised, I would build the ice up internally in a conical form, beating it extremely small, to assure its cohesion, as well as to exclude air. A space should be left between the top of the cone and the roof the house, large enough to allow a thatch of straw 8 or 10 inches in thickness to be built over it, which should take the shape of the house, so that on the melting of the ice it would sink with the decline of that body, and still protect it from the direct action of the atmosphere.

This remedy has reference to wells of common or imperfect construction, and where no means of substituting another and an improved system exists. Wherever the choice of situation, &c., is commanded, the more economical and effectual plan of building stacks on the surface of the ground should be pursued; those unacquainted with this last-mentioned plan may find the subjoined description of the system which is practised here with unvarying success, useful. The position chosen for the ice-stacks is peculiarly suitable, being the north side of a considerable embankment or dam, which stretches across a hollow, and causes, on the south side (by intercepting the drainings from the surrounding slopes) a large piece of water, which supplies the ice. Proximity to water is a great advantage, the expense of carting, which is generally so considerable, being altogether dispensed with. The embankment has the further advantage, for the purpose in view, in being clothed with timber trees. The stacks are built on the dry side of this bank, which slopes gradually to the bottom, and is made hard and smooth, to receive the ice. No drains are permitted, the angle of the slope being sufficient to carry off the drainings from the ice. The body of ice is supported by a wall of Fern and leaves 4 to 5 feet in thickness, which is built up in the first case, and subsequently shored up and secured by hurdles. The ice is thrown within this circular wall, and well pulverised as the heap is increased. It is built in a conical form, or, perhaps, it takes rather the shape of the common hay-stack. The ice is rammed as closely as possible in a compact mass. A little clean straw is first strewn over the top; a covering of Fern, 18 inches at least in thickness, follows; after which its complete security from rain, or the action of the atmosphere, is insured by a thatch of straw, made so that as the decrease of the ice its simultaneous fall may not be prevented by the sides of the stack. As this cannot always be exactly done, the roof should be examined occasionally in the course of the season, and its gradual descent provided for. *W. Ingram, Hatfield House.*

## THE LATE MR. M'NAB.

We have this week to record the decease of one of the oldest and best gardeners of whom this country has had to boast. Mr. William M'Nab, of Edinburgh, died on the 1st of the present month.

An interesting history of his career is contained in the following extract from the proceedings at a public dinner given, on the 14th March, 1844, upon the occasion of presenting him with the M'Nab Testimonial:

William M'Nab first saw the light in 1780, in the parish of Dailley, in Ayrshire, where his father was a farmer. His early years were devoted to the duties of a shepherd on the hills of his native county. Amid those scenes, his genius was early directed to the beautiful forms and variety exhibited by vegetable life; and our stripling shepherd was inspired with a strong predilection for the occupation of a gardener. His father, yielding to his wishes, had him apprenticed to the gardener of Mr. Kennedy, of Dalquharran, at the age of 16. After serving three years in that place, he was recommended by Mr. Kennedy to the late Mr. Walter Dickson, of Edinburgh, who procured him a situation in the gardens of Lord Haddington at Tyningham. There he remained about a year, when, being anxious to improve still farther in his profession, he went to London, where he had the good fortune to be recommended to Mr. Aiton, superintendent of the Royal Garden, at Kew, and to obtain employment in that magnificent establishment; after three years' service in the different departments he was appointed to the responsible situation of foreman. There he remained for several years, acquiring knowledge and experience; and here his conduct and intelligence recommended him to the favourable notice of his Majesty George III., then a frequent visitor at Kew, and brought him in contact with Sir Joseph Banks, the ready patron and judicious friend of modest merit. On the death of the curator of the Royal Botanic Garden at Edinburgh, the late Professor Rutherford consulted his friend Sir Joseph on the choice of a successor, and the baronet strongly recommended Mr. M'Nab, who immediately received the appointment, and entered on the duties of his new office in May 1810. It is therefore more than 30 years since Mr. M'Nab was called to Edinburgh.

After his appointment he exerted himself with indomitable industry in the old Botanic Garden of Edinburgh, and when it became necessary to transfer the Garden to its present locality, Mr. M'Nab displayed remarkable skill in his arrangements for that purpose—particularly in the successful removal of trees, shrubs, and plants, to their new situation—some of them of large size, and probably 100 years old. During his whole career, Mr. M'Nab has pursued a steady and unobtrusive course of observation and experiment, with regard to the rearing of exotics from all quarters of the globe; and that he has been pre-eminently successful in this department, the Botanic Garden, in its present state, furnishes ample proof. He has also, by useful publications (particularly those on the cultivation of Cape Heaths and the transplanting of Evergreens), made known to others both the nature and results of his practice; and his numerous pupils have not failed to disseminate widely the lessons they were taught. Indeed, by the strict order and undeviating regularity which he has ever both displayed and enforced, Mr. M'Nab may be said to have organised a new school of practical gardeners; while his kindly encouragement of merit, wherever it appeared among his assistants, and his unwearied attention to every request for advice or aid, whether from operative or amateur horticulturists, has made him as universally esteemed as he is extensively known.

Mr. M'Nab's happy combination of sound theoretical views with rules of practice has never been exceeded by any horticultural writer. His papers on the management of Heaths and the transplantation of Evergreens are guides which will never mislead the inquirer. But he taught by personal example more than by written precept, and those only who have now lost the former can judge correctly of the value which would have been contained in the latter. No one has had such opportunity of profiting by his teaching as his son, who we trust will soon be installed in the office which the father filled so long and so worthily. No one can be better suited to the charge; very few are so well adapted. As the post of honour, among gardeners, in Scotland, it must be held by a man of acknowledged talent, and, as far as we can judge, no one has higher qualifications than Mr. James M'Nab.

## CONSERVATIVE WALL PLANTS.

An Irish subscriber, residing in the county of Meath having asked us for a list of plants suitable for a con'

Cottage Gardener, 1849



## WEEKLY CALENDAR.

| M D | W D | JANUARY 18—24, 1849. | Plants dedicated to each day. | Sun Rises. | Sun Sets. | Moon R. and Sets. | Moon's Age. | Clock bef. Sun. | Day of Year. |
|---|---|---|---|---|---|---|---|---|---|
| 18 | Th. | Prisca. Tufted Pocher goes. | Silvery Moss (Bryum) | VII | 23 a 4 | 2 25 | 24 | 10 48 | 18 |
| 19 | F. | Cole Titmouse heard. | White Dead Nettle | 58 | 24 | 3 26 | 25 | 11 6 | 19 |
| 20 | S. | Fabian. Starlings resort to build- | Large Dead Nettle | 57 | 26 | 4 23 | 26 | 11 24 | 20 |
| 21 | Sun. | 2 Sun. a. Epip. Agnes. Grosbeak goes. | Christmas Rose | 56 | 28 | 5 18 | 27 | 11 41 | 21 |
| 22 | M. | Vincent. Mezereon flowers. | Early Witlow Grass | 55 | 30 | 6 9 | 28 | 11 58 | 22 |
| 23 | Tu. | Sun's dec. 19° 24′ s. Skylark sings. | Saucer-like Peziza | 53 | 31 | 6 53 | 29 | 12 13 | 23 |
| 24 | W. | Great Titmouse heard. | Pointless Moss (Phasum) | 52 | 33 | sets | ◍ | 12 28 | 24 |

Paisca was a Roman virgin, martyred by command of the Emperor Claudius, about the year 47, for refusing to desert Christianity.

Fabian, nineteenth Bishop of Rome, was martyred on this day in the year 214, during the Decian persecution.

Agnes, another Roman and Christian virgin, was martyred on account of her religion, by order of the Emperor Diocletian, about the year 304. She was only thirteen at the time she was beheaded. Formerly our country maidens were accustomed to go to bed supperless on the night of the 20th, which they called "fasting St. Agnes' fast," with the belief that their future husbands would appear to them in their dreams.

Vincent was a Spanish Christian, burnt during the same persecution, by the Emperor Diocletian, in the year 304.

Phenomena of the Season.—Whilst we are writing this (January 6th), the face of the earth is covered with snow which fell the preceding night; but a thaw has commenced, and as one of our objects in publishing these notes is to awaken a spirit of inquiry among our readers, let us examine a little into "the why and because" of what this thaw is doing. We see that a spade was carelessly left upon one of the borders yesterday, and the snow has melted from off the iron part, whilst it remains unaltered upon the handle. Why is this? Because metal becomes warmed much faster than wood. Thawing is the return of ice or snow to the state of water, and this thawing is occasioned by their being exposed to a temperature higher than 32°, at which water freezes. That higher temperature is occasioned either by the direct rays of the sun, or by a warm current of air, and from these the iron of the spade receives, or absorbs, heat faster than does the wood of the handle. As the iron receives heat faster, so does it part with it faster than wood does; or, as the chemists say, it is a better conductor of heat. Therefore, the iron of the spade gives out the heat to the snow more quickly, and melts it more rapidly than is done by the wooden handle. The thermometer shews that, now it is thawing, the air is warmer than yesterday when it was freezing, yet we feel the cold more,—to use a common phrase, "it is a raw penetrating cold." Why is this? Because the air is damper during a thaw than during a frost, and damp air absorbs, or conducts heat from our bodies, and from all other bodies, faster than dry air does. Plants in a greenhouse, or elsewhere, will endure without hurt a degree of cold, if the air within it is dry, that would kill them if that air was damp.

Insects.—In the present month, a few years since, when grubbing up the roots of some old lime, or linden trees, we found many of the pupæ or chrysales of the Lime Hawk Moth (*Smerinthus tiliæ*).* We believe that during the present month, and until the end of March, is the best time for taking them from their resting places about the roots of the lime and elm. They are dark brown, and found about two or three inches below the surface of the earth. In May the perfect insect, or moth, comes forth from the pupa. Its thorax, or

| Jan. | 1841. | 1842. | 1843. | 1844. | 1845. | 1846. | 1847. | 1848. |
|---|---|---|---|---|---|---|---|---|
| 18 | Rain. | Frost. | Cloudy. | Cloudy. | Rain. | Showery. | Frost. | Fine. |
| Highest & lowest temp. | 47°—33° | 33°—31° | 49°—33° | 44°—38° | 46°—33° | 53°—35° | 32°—28° | 38°—27° |
| 19 | Showery. 36°—28° | Cloudy. 33°—27° | Cloudy. 44°—34° | Fine. 48°—37° | Showery. 45°—32° | Rain. 54°—41° | Cloudy. 33°—26° | Cloudy. 35°—29° |
| 20 | Fine. 34°—22° | Cloudy. 33°—32° | Cloudy. 39°—29° | Cloudy. 48°—28° | Rain. 45°—24° | Fine. 51°—40° | Snow. 36°—25° | Cloudy. 35°—30° |
| 21 | Frosty. 38°—25° | Cloudy. 35°—30° | Cloudy. 41°—34° | Cloudy. 47°—34° | Frost. 45°—21° | Showery. 55°—50° | Snow. 36°—30° | Cloudy. 32°—30° |
| 22 | Frosty. 44°—32° | Cloudy. 38°—29° | Fine. 44°—34° | Rain. 49°—26° | Fine. 48°—38° | Rain. 56°—41° | Cloudy. 36°—30° | Cloudy. 33°—28° |
| 23 | Fine. 43°—32° | Sleet. 38°—18° | Showery. 48°—43° | Fine. 45°—35° | Cloudy. 48°—39° | Showery. 51°—42° | Cloudy. 44°—34° | Cloudy. 35°—29° |
| 24 | Snow. 38°—26° | Frosty. 36°—23° | Showery. 48°—39° | Fine. 43°—23° | Showery. 46°—25° | Fine. 53°—41° | Showery. 48°—38° | Cloudy. 37°—29° |

breast, is ash-coloured, with three olive green bands; body ash-coloured; upper wings pale brick-red, blotched with olive green near the middle and upper edge; the outer edge has a broad border of olive green; lower wings rather darker, but mixed with the same colour; feelers, or horns (*antennæ*) and feet, ash-coloured. Each female lays about fifty eggs, from which the caterpillars are hatched in July and August, and are then found feeding upon the leaves of the lime and elm. They are rough; green, with reddish yellow stripes along their whole length; thinner before than behind; and have tails. They are usually found alone, being very liable to attack and wound each other. They change to the pupa state in October, first burying themselves in the ground, and becoming of a bright purple colour just before that change. It is curious that the moth invariably comes forth from the pupa precisely at noon.

* *Pupa* or *Chrysalis* is the form assumed by the grub or caterpillar, and in which it remains at rest, until the time arrives for its final change into a perfect insect.

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Another of the most excellent of our British gardeners has been gathered by death; but, to mitigate our regret, we have the knowledge that he was ready for the harvest, and has left behind him a remembrance, a character, which all may benefit by imitating. Mr. William M'Nab, Curator of the Royal Botanic Garden at Edinburgh, died a few weeks since, at near the allotted age of three-score years and ten.

"He first saw the light," says Dr. Neill, in a communication with which he has favoured us, "in 1780, in the parish of Dailly, in Ayrshire, where his father was a farmer. His early years were devoted to the duties of a shepherd on the hills of his native country. Amid those scenes his genius was early directed to the beautiful forms and variety exhibited by vegetable life; and our stripling shepherd was inspired with a strong predilection for the occupation of a gardener. His father, yielding to his wishes, had him apprenticed to the gardener of Mr. Kennedy, of Dalquharran, at the age of 16. After serving three years in that place, he was recommended by Mr. Kennedy to the late Mr. Walter Dickson, of Edinburgh, who procured him a situation in the gardens of Lord Haddington, at Tyningham. There he remained about a year, when, being anxious to improve still farther in his profession, he went to

London, where he had the good fortune to be recommended to Mr. Aiton, Superintendent of the Royal Garden at Kew, and to obtain employment in that magnificent establishment; after three years' service in the different departments, he was appointed to the responsible situation of foreman. There he remained for several years, acquiring knowledge and experience; and his conduct and intelligence recommended him to the favourable notice of his Majesty George III., then a frequent visitor at Kew, and brought him in contact with Sir Joseph Banks, the ready patron and judicious friend of modest merit. On the death of the Curator of the Royal Botanical Garden at Edinburgh, the late Professor Rutherford consulted his friend Sir Joseph on the choice of a successor, and Sir Joseph strongly recommended Mr. M'Nab, who immediately received the appointment, and entered on the duties of his new office in May, 1810. It is therefore nearly forty years since Mr. M'Nab was called to Edinburgh.

"After his appointment, he exerted himself with indomitable industry in the old Botanic Garden of Edinburgh, and when it became necessary to transfer the Garden to its present locality, Mr. M'Nab displayed remarkable skill in his arrangements for that purpose; particularly in the successful removal of trees, shrubs, and plants, to their new situation; some of them of large size, and probably 100 years old. During his whole career, Mr. M'Nab pursued a steady and unobtrusive course of observation and experiment with regard to the rearing of exotics from all quarters of the globe; and that he has been pre-eminently successful in this department, the Botanic Garden in its present state furnishes ample proof. He has also, by useful publications, made known to others both the nature and results of his practice; and his numerous pupils have not failed to disseminate widely the lessons they were taught. Indeed, by the strict order and undeviating regularity which he has ever both displayed and enforced, Mr. M'Nab may be said to have organised a new school of practical gardeners; while his kindly encouragement of merit, wherever it appeared among his assistants, and his unwearied attention to every request for advice or aid, whether from operative or amateur horticulturists, has made him as universally esteemed as he was extensively known.

"Mr. M'Nab's happy combination of sound theoretical views with rules of practice, has never been exceeded by any horticultural writer. His papers on the management of Heaths and the transplantation of Evergreens are guides which will never mislead the inquirer. But he taught by personal example more than by written precept; and those only, who have now lost the former, can judge correctly of the value which would have been contained in the latter."

Thus, by his own persevering and unwearied efforts, and by his obliging manners, did the shepherd's boy win his way through the paths of science and of life, until he deserved and obtained one of the best appointments attainable in that particular department of the arts and sciences to which he devoted his mind. The knowledge to which he attained was deep and accurate, and the courtesy which adorned him was the joint offspring of a sound sense and a kind heart.

"No man," says Dr. Balfour, the Edinburgh Professor of Botany, "possessed a more thorough knowledge of his profession in all its departments; and yet, combined with his extensive information, there was an innate retiring modesty and unobtrusiveness of deportment, which endeared him to every one. His advice and counsel were readily given when asked, and they were always tendered in such a way as to secure universal respect. Few men ever had a greater number of friends, in all ranks of society, during his lifetime; and none ever died more generally regretted. His death was a loss to the city, and will be deeply felt by all the practical gardeners of the country."

Yet, with all these high and acknowledged attainments, Mr. M'Nab was never presuming; but, on the contrary, like a true son of genius, always modest and unpretending. "He was respectful to his superiors in rank," says Dr. Neill, "yet without being in the slightest degree obsequious. No man knew better his position in society, and he conducted himself accordingly." Thus loved and honoured, Mr. M'Nab lived and died; and it must have been a comfort in his dying hour to know that he had trained up a son so well, that he is not only worthy to be, but who probably will be, his successor in the Curatorship.*

## THE FRUIT-GARDEN.

Nuts.—As some of the correspondents of The Cottage Gardener have inquired about nut culture, we will endeavour to supply them with the information for which they are seeking. The culture of nuts is seldom pursued by the cottager as a profitable article, unless it be in the county of Kent, so long famed for its filberts. We do not see, however, why its culture may not be attempted by the cottier—especially in the vicinity of large towns, and where the soil is of a free loamy texture.

Varieties.—There are several varieties of this interesting shrub; but, amongst them all, the filbert has for many years claimed the pre-eminence in the dessert. Nevertheless, some of the other kinds are well worthy of cultivation—some for their size, and some for the individual character stamped on them, although mainly affecting the beard or husk, from whence it would appear the name of "full beard" or filbert is derived. These, like all our other fruits, have had their varieties multiplied by seedlings, some partaking more of the character of their male parent, others of the female. The kinds worthy of cultivation may be classed under two heads—1, filberts; 2, nuts; the remaining portion being for the most part seedlings, not far removed from the wild nut. Some of these kinds are propagated by grafting on the common hazel, others are reared by suckers. The Spanish Cob is preferred by some, as a stock, on account of its strength, &c.; but we feel pretty well assured that the whole would answer better (as part of a dwarfing system) for small gardens, propagated by cuttings, and trained accordingly.

As special kinds, we would cultivate the following:—

The White filbert; first rate.

* This son, Mr. James M'Nab, is at present, we believe, Superintendent of the Caledonian Horticultural Society's Garden, at Edinburgh.

Oxford Dictionary of National Biography

**McNab, William Ramsay** (1844–1889), *botanist*
by E. Charles Nelson
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**McNab, William Ramsay** (1844–1889), botanist, was born on 9 November 1844 at Edinburgh, the only son of James McNab (1810–1878), horticulturist and principal gardener from 1849 of the Royal Botanic Garden, Edinburgh, and his wife, Margaret, daughter of Peter Scott; the couple also had five daughters. William's grandfather, also William McNab, was foreman at the Royal Botanic Gardens, Kew. He was educated at Edinburgh Academy and studied medicine and botany at the University of Edinburgh, graduating MD in 1866. Thereafter he went to Berlin, where he studied botany under Alexander Braun and Karl Koch, and pathological anatomy and histology under Rudolf Carl Virchow. Returning to Britain he was assistant physician in the Crichton Royal Institution, Dumfries (1867–70), but abandoned medicine for botany to become professor of natural history at the Royal Agricultural College, Cirencester.

A thorough, precise laboratory demonstrator and a fluent, simple, entertaining lecturer, McNab is credited by the anonymous author of his obituary in *Nature* with introducing to British students, through his lectures at Cirencester in 1871, the incisive experimental methods of Julius Sachs (1832–1897). As no detailed information has been traced about McNab's lecture courses at Cirencester or elsewhere, this particular claim to distinction is difficult to verify; there were others who pioneered the teaching of experimental botany around the same time, such as Thomas Henry Huxley at the Royal School of Mines, and Sydney Vines at Cambridge. Nevertheless, if McNab was indeed teaching Sachs's methods as early as 1871, then that would have preceded both Huxley and Vines.

In March 1872 McNab moved to Dublin as professor of botany in the Royal College of Science, established in 1867 and later incorporated into the National University of Ireland. He had a great appetite for work, voluntarily trebling his work in the Royal College. He contributed various short articles to the *Encyclopaedia Britannica* (9th edn), including ‘Vegetable histology’, and published two class-books, *Outlines of Morphology and Physiology* and *Outlines of Classification of Plants* (1878), and numerous brief notes and research papers, especially on plant morphology and physiology.

McNab was married and had children but little is known of the details of his family. His wife signed herself with the initials J. L. (McNab). He was an abrasive, ambitious man, but did not always succeed; for example, he was prevented from obtaining the chair of botany in the University of Glasgow. From 1 April 1878 both the Royal (later National) Botanic Gardens, at Glasnevin, Dublin, and the Royal College of Science were administered by the Department of Science and Art, so McNab sought exclusive facilities at Glasnevin for his teaching and research. The gardens' director, David Moore (1808–1879), was obliged to concede, but feared McNab's ambition (ultimately thwarted) to become director. On 25 March 1880 McNab was appointed scientific superintendent of the Royal Botanic Gardens, without any rights to intervene in administrative or horticultural matters. He was

charged to carry out research, report annually on the scientific work of the gardens, and produce a new guidebook (issued in 1885). His subsequent relationship with the curator, David Moore's son Frederick William Moore (1857–1949), was frequently seriously strained.

McNab died of heart disease on 3 December 1889 in Dublin. His wife was left in straitened circumstances, and to support herself and her young children she was obliged to take paying lodgers into her home and to sell her husband's library, scientific instruments, and herbarium. Most of McNab's herbarium, rich in important specimens collected by his grandfather, William McNab (1780–1848) at the Royal Botanic Gardens, Kew, before 1810, and by his father during a visit to North America (1834), is held at the National Botanic Gardens, Glasnevin.

E. CHARLES NELSON

**Sources** E. C. Nelson and E. M. McCracken, *The brightest jewel: a history of the National Botanic Gardens, Glasnevin, Dublin* (1987) · E. C. Nelson, 'William Ramsay McNab's herbarium in the National Botanic Gardens, Glasnevin', *Glasna*, new ser., 1 (1990), 1–7 · 'Botanical necrology for 1889 ... William Ramsay McNab', *Annals of Botany*, 3 (1889–90), 477–9 · *Nature*, 41 (1889–90), 159–60 · *Journal of Botany, British and Foreign*, 28 (1890), 51–2 · S. M. Walters, *The shaping of Cambridge botany* (1981) · misc. MSS, National Botanic Gardens

**Archives** National Botanic Gardens, Glasnevin, Dublin, Ireland, MSS

**Likenesses** photograph, *c.*1880, repro. in Nelson, 'William Ramsay McNab's herbarium'

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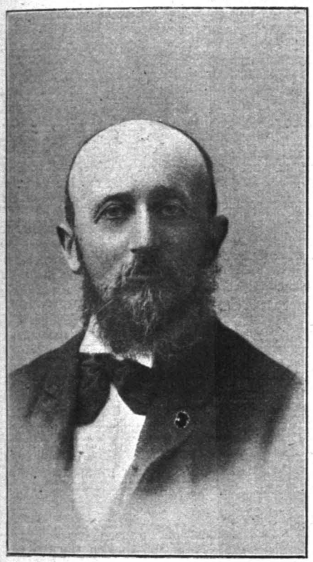
E. Charles Nelson, 'McNab, William Ramsay (1844–1889)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2009 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/17703, accessed 13 Nov 2014]

William Ramsay McNab (1844–1889): doi:10.1093/ref:odnb/17703

where, and if that is correct the cause must be merely mechanical, such as some slight change in the arrangement or formation of the cells and fibres. Here intelligent observation and experiment might be useful. The arrangement of sports and their parents in tabular form, so that their similar and dissimilar points might be compared, would, perhaps, throw some light upon the matter. It is noteworthy that of the twelve Chrysanthemums shown in the photograph, at least four (Australie, Miss L. Evans, Mrs. Barkley, and Bessie Godfrey) have given several fine sports, while another (Mrs. Mease) is itself a sport from Madame Carnot. The field is a large one, open to amateurs as well as to professionals—even more open to them, for they often have more leisure—and rich in possibilities. It is not too much to say that the man who discovers the cause of sporting, and learns how to exercise some control over it, will have a fortune within his grasp. I have looked to see whether Mr. Wells has anything to say on the subject. "It is a curious fact," I read, "that sports travel in the same direction—viz., from white to yellow, from yellow to bronze, from pink to white, bronze, yellow, etc.—and although some kinds are so free in giving sports, others do not sport at all." But after saying that the differences extend to character as well as to colour, he admits that the whole matter is a mystery. "Altogether, there is room for as much speculation as to the cause of sports as there is to a child born with two thumbs on one hand." Yet, somehow or other, the mystery does not appear to me to be incapable of solution. And when the solution is found we shall probably be surprised at its simplicity—surprised, too, at our own stupidity for not having found it out before.

April 21st.—I have been asked why roots spread outwards—why, in the case of pots, they travel along the sides. It is really a very simple matter. Roots can grow only where there is food, and, naturally, they grow most rapidly where food is most plentiful. The circular space immediately beneath a plant, being surrounded, and to some extent, traversed by roots, is soon exhausted of its food; the roots must, therefore, grow outwards if they are to grow at all. The fact that there is more moisture at the sides than in the centre of the ball is another reason why they take that direction, and it explains why they remain there instead of turning back when they are stopped. Hence, in order to ensure that the whole ball is filled with roots, and that no space is wasted, a plant is gradually moved through the whole scale of pots, instead of being suddenly transferred from a small size to a large one.

H. C. Davidson.



Mr. W. Mease.

# Famous Gardeners at Home.

No. 134.—Mr. W. MEASE, at DOWNSIDE GARDENS, LEATHERHEAD.

THE reputation of the Roses at Downside is more than local. Mr. Alfred Tate, the owner, has spared no expense in the cultivation of the flower he both loves and understands, and the prizes which have been won at leading shows attest the measure of the success achieved. Naturally, on the occasion of my visit to Mr. Tate's beautiful place, near Leatherhead, the first spot to which Mr. Mease, the well-known head gardener, who has also charge of the farm, conducted me was the very considerable and charming Rosery. The picture in this issue gives only an idea of the size of the Rosery, which is about four acres in extent, and on the slope of the hill.

"We have just put up the pergolas," said Mr. Mease, "and they have somewhat changed the appearance of the garden. Previously, the feature has been the pillars and the arbours."

"You must have an enormous quantity of Roses in it?"

"There are so many that I should not care to attempt to give the exact number. Half of the space is devoted to 'show' Roses, and half to garden Roses."

"In both I believe you have been extremely successful at the Rose shows?"

"We were particularly so last year, especially at the National Rose Show, where we took the silver cup for twelve blooms, the medal for the best Tea Roses, and the medal for the best Hybrid Tea. As to other shows, we won the Coronation cup at the Sutton Show, and the challenge cup at Croydon Show. In fact, we were not beaten in 1903."

"I should like to know to what you chiefly attribute your success in cultivation?"

"Largely to our practice of planting out our own stocks, and budding them on the ground where they are intended to remain."

"Is the soil suitable?"

"On the contrary, the soil being chalky is unsuitable, and all the beds in the Rosery have been made with soil carted into the place."

"How long has the Rosery been in existence?"

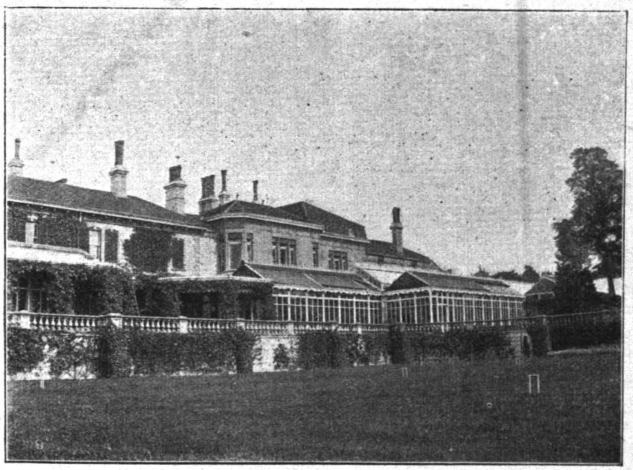
"We commenced it fourteen years ago, and it was gradually developed. The 'show' Roses are mixed with several Roses of a kind. We do not confine a bed to a single variety, and in one bed we have as many as nine varieties."

"Of course, you have all the best, but I should like to have the names of twelve of the Hybrid Perpetuals and twelve of the Hybrid Teas which you can recommend for show purposes."

"Here are twelve Hybrid Perpetuals: Horace Vernet, Charles Lefebvre, Mrs. John Laing, Alfred Colomb, Alfred K. Williams, Gustave Piganeau, Suzanne Marie Rodocanachi, Ulrich Brunner, Comte Raimbaud, Marie Baumann, Louis van Houtte, and Ulster. Of Hybrid Teas, I recommend Bessie Brown, Mildred Grant, Alice Lindsell, Antoine Rivoire, Caroline Testout, La France, Mrs. W. J. Grant, White Lady, Florence Pemberton, Papa Lambard, Killarney, and Kaiserin Augusta Victoria."

"How about garden Roses, in which you are understood to be unrivalled?"

"Yes, I think that we can claim to be champions so far as garden Roses are concerned. The best include Liberty, Gustave Regis, Eugene Lamesch, Leonie Lamesch, Paul's Carmine Pillar, Gracilis, Irish Glory, W. A. Richardson, Perle d'Or, Gloire Lyonnaise, Crimson Rambler, Reine Olga de Wurtemberg, Macrantha, Cecil



Conservatories and Croquet Lawn, at Downside, Leatherhead.

Brunner, Boule de Neige, Red Damask, Rosa Mundi, and Augustine Guinoisseau."

"Will you add the names of a few of the best Teas?"

"Mrs. Edward Mawley, White Maman Cochet, Madame Cusin, Catherine Mermet, Bride, Muriel Grahame, Medea, Princess Beatrice, Madame de Watteville, Ethel Brownlow, Bridesmaid, Comtesse de Nadaillac, Souvenir de S. A. Prince, Alice Grahame, Souvenir d'un Ami, Madame Hoste, and Hon. Edith Gifford."

As we walked from the Rosery to the Italian garden, which is a new feature, Mr. Mease explained that the greater part of the gardens had been made in the fifteen years since Mr. Alfred Tate purchased the property, a large portion being then merely ordinary meadows.

"You have done wonders," I said, "for except that the trees and shrubs are obviously in the growing stages, one might suppose that all the gardens were laid out a long time ago. I see that you have a Lily pond in the Italian garden."

"Yes, it contains all the best Marliac varieties. The gold fish, which are of unusually large size, were imported from Italy."

"The grass steps down to the water are pretty?"

"They are pretty to look at, but rather difficult to keep in order."

"Your bedding here seems to consist of Aubrietias?"

"That is our principle in this garden. Last year, the first it was completed, we had Wallflowers only for spring bedding. After the Aubrietias we shall have Begonias, chiefly at any rate."

"What do you grow on the walls round the croquet court?"

"Those walls, by the way, used to be sloping banks. We grow on them Roses, Honeysuckle, and Vines."

"Which varieties of Roses?"

"Alister Stella Gray and Longworth Rambler, a continuous-flowering Rose. The latter grows also on the verandah of the mansion. Mr. Tate is very fond of Longworth Rambler; it is one of the first out and one of the last to remain in bloom."

Next we went into the winter garden, bright not only with birds of many-coloured plumage, but with flowers of many hues.

"It must take a great quantity of plants to supply this large house," I observed.

"Yes, it does, for we keep it going all through the winter and spring, and make a general, though not an entire, change once a week."

"You have some fine Deutzias here?"

"We grow a quantity. Also Mignonette and Azalea mollis. The Acacias of various sizes in pots are rather a feature."

"They are very effective. What are the varieties?"

"Dealbata and grandis. The latter are quite twelve feet high. We have two or three dozen pots."

"Are they difficult to grow?"

"Not at all. The great point is to cut them hard back after they have flowered. They are quite cheap, and I wonder that they are not more grown. We are fond of greenhouse Rhododendrons. Three of the best varieties are Fosterianum, Listerianum and Veitchianum, all white. Among the creepers are Stauntonia latifolia, of which the perfume is delightful, and Cobæa scandens variegata, which covers the roof entirely. Juniperis Bermudiensis is a most useful plant for decorating ball-rooms. I have found it hardy, for it has been outside my cottage for two winters. Another very effective plant for the winter garden is Browallia Jamesonii, a very old plant, with an orange-yellow flower. It comes into full bloom in May, and keeps on until August."

"I notice that you have some nice flowers of Lachenalia."

"I have grown Lachenalias of the pendula variety for some time. I am fond of the crimson flowers, tipped with green. The variety of Primula here, of which I have three or four dozen plants, is an old one. The Cinerarias are all of the stellata kind. We prefer them to the large-flowering varieties."

"Bamboos seem a favourite," I said, before we passed into the handsome Fernery, planted out in rockwork, the stone used being of such a soft nature that seedling Ferns grow freely on the face of it.

"Yes, we grow them in the walls of the winter garden now, instead of Camellias, which were so stiff. The Fernery walls were formerly lined with Bamboos, but we lately introduced peat and moss, with Begonias of the Rex varieties as a change; and I think that the Begonias are a fine contrast to the Ferns."

"You have also Ferns and Begonias on the walls of the Lapageria house?"

"Yes, and I may say that these Begonias grow better in a cold house, with the frost just kept out, than in the stove. The Lapagerias (red and white) are trained to cover the roof."

Leaving the winter garden, we inspected the herbaceous border, which is a portion of the gardens made out of agricultural land twelve years ago.

"The length," said Mr. Mease, "is over a hundred and fifty yards, and the collection includes Delphiniums, Phloxes, Pentstemons, Geraniums, Spiræas, Liliums, Pæonies, Aquilegias, Hyacinths, Tulips, and Primulas. On the lawns opposite there are beds planted with one

Some of Mr. Mease's Prizes.

variety, such as variegated Golden Privet and Golden Box. Some of the beds are edged with Hyacinths, others with Tulips, and others again with Crocuses. Here we have put in a number of Conifers of the best kinds. The chalky soil suits Picea Principii remarkably well. It also specially suits Berberis stenophylla."

"You have a large bed of Berberis edged with Hyacinths?"

"Yes, there is the Darwinii variety, in addition to stenophylla, but I do not like it so much."

Passing another herbaceous border, of considerable length, we came to a very fine summer tennis court, while above is the cricket field, and on the occasion of my visit one of the Surrey professionals was doing some coaching. Near these is an avenue of some seventy Laburnums, planted two or three years ago, to come across the walk, and a little further on, where the tower of Leith Hill, eleven miles away, can be plainly seen, Mr. Mease pointed out another new feature in the shape of an old-fashioned garden."

"It contains sixteen beds," he continued, "and has a border all round, with centre trees separate from the beds. The plants grown here will include Rosemary, Lavender, Roses, Violets, Mignonette, Sweet Williams, Hollyhocks, Foxgloves, and Sunflowers."

"Have you any rockery," I inquired, as we approached the front of the mansion, which is covered with Ivy, mixed with Virginian Creeper.

"We have just started a little rock-work," rejoined Mr. Mease, as he called my attention to one striking example of slow growth, a plant of Juniperus hybernicus compressus nanus, bought from the owner of what is now the Guildford Hardy Plant Nursery, twenty years ago, and only two feet high. "The varieties include Sedums, Saxifraga, Veronicas, Erica carnea (which are in flower for winter), Aubrietias, Scillas in variety, Rock Roses, and others."

"Daffodils are grown in quantity," I remarked, as we inspected, first, a small new orchard, planted with Apples, Plums, and Damsons, and then a splendid winter court, made of broken flower-pots, put through a mill and ground down.

"Yes, and Violets. We were never without Violets during the winter. The double varieties are Marie Louise and Lady Hume Campbell, but we have also had a fine lot of La France."

"Is there any special feature in the two kitchen gardens?"

"No, I think not. In the original kitchen garden Apples and Pears are grown on pyramids up the centre walk, and on espaliers up the side walks. Six of the best Pears are Williams' Bon Chrétien, Marie Louise, Louise Bonne of Jersey, Pitmaston Duchess, Glou Morceau, and Winter Nelis. Of Apples, the six best are Cox's Orange Pippin, Warner's King, Allington Pippin, Hambling's Seedling, and Peasgood's Nonsuch. We grow a very old variety, called Lamb Abbey."

Close to the kitchen gardens are the houses, of which there are a great number. We did not explore them all, but went through the more notable, commencing with the houses devoted to Roses in pots.

"Do you grow many varieties for potting?" I asked.

"No, only a few—La France, General Jacqueminot, Catherine Mermet, Maman Cochet, and its white variety. We grow the first two specially for cutting. On the roof are Maréchal Niel and Niphetos, which does wonderfully well. The later varieties are Alister Stella Gray, Longworth Rambler, and Charles Lawson, a very old Rose, which always thrives in pots."

"What Grapes do you go in for?"

"In the late Vinery is a newly-planted Lady Downes, with French Beans and Royal Sovereign Strawberries on the side stages, while on the back wall are Tomatoes—Sutton's Perfection, which we like best. Early Hamburghs are grown in the next Vinery, and also Strawberries, which are just coming on."

"The Peaches and Nectarines in the adjoining house appear to be well set with fruit."

"Yes, I have been thinning them. The Peaches are Grosse Mignonne, and the Nectarines, Lord Napier."

"Chrysanthemums are, of course, a great feature at Downside?"

"I suppose I am one of the oldest exhibitors of cut blooms, and I have shown a good deal. We grow about twelve hundred Incurved, Japanese, and bush varieties."

"You might tell me a dozen of the best Japanese varieties?"

"F. S. Vallis, Madame Paolo Radaelli, Madame Carnot, Mrs. W. Mease, Lady Cowper, Mrs. Barkley, Mrs. George Mileham, Miss Olive Miller, Alfriston, Lord Ludlow, Bessie Godfrey, and Mrs. F. W. Vallis. Of Incurved, here are half a dozen of the best—Duchess of Fife, C. H. Curtis, Lady Isabel, Topaze orientale, Mrs. Judson, and Mr. H. J. Jones."

Glancing through a late Peach house, a Vinery containing Madresfield Court Grapes, another with Muscat of Alexandria, a Melon house, a Cucumber house with a nice lot of Sutton's A 1 Tomatoes, just swelling well, and a range of houses with Fuchsias, Begonias, Asparagus, and Orchids, we came to the Carnation house.

"You have a fine collection of Malmaisons," I remarked.

"Yes, Carnations are a feature. We grow about eight hundred Malmaison and other sorts. Among the best of the Malmaisons are Old Blush, Princess of Wales, Nell Gwynne, Sir Evelyn Wood, and Prime Minister. Mrs. Lawson is the most useful winter Carnation; it is so free and fragrant."

"Are you troubled with rust?"

"No, there is no trace of it. All the plants are in the best of health."

"We use this for Chrysanthemums in the winter," said Mr. Mease, as we entered a span-roofed house nearly a hundred feet long. "Now it is devoted to Amaryllis, plunged in leaves in the centre bed, producing fine spikes, some of the bulbs of enormous strength. On the side stages are French Beans and Tomatoes; and at the cooler end of the range are Peaches in pots, with Deutzias, Azaleas, Callas, Hydrangeas hortensia, and Spiræas. We grow a quantity of Daffodils in boxes in this house."

"Do you go in extensively for Orchids?"

"They are limited mainly to Cattleyas, Dendrobiums, Odontoglossums, and Cypripediums. Of the last we have a good type of the old insigne. Since Christmas we have had from five to six hundred flowers, and as many as twelve or fourteen in a small pot. In the stove there is a general collection of Crotons, Dracænas, Palms, and Eucharis. Gardenias are also grown in quantity."

"I must congratulate you upon your splendid show of Clivias."

"Yes, they are very much admired. We have upwards of a hundred and fifty pots, all seedlings. I started with a few good varieties, and improved the flowers. They are used for cutting. One truss had thirty-six blooms on it."

"Now, to sum up, Mr. Mease. How large are the gardens, and how many men are employed in them?"

"The estate is about eighty acres, and the gardens with houses about twenty. We have about twenty-five men at work, two of whom devote all their time to the Roses. There is never any stint of labour, and Mr. Tate is always pleased to allow people to see the gardens. Several societies have been entertained here at different times. We have had as many as six hundred children to tea in the old tithe barn, which, as you see, has been adapted to modern needs."

Before I left the pleasantly situated cottage in which Mr. Mease resides, I got him to show me some of his numerous prizes, which overflowed a large safe. On being asked to tell me where they were won, and to give me a brief account of his professional experience, he said:

"My first appointment as head gardener was in Liverpool, in the year 1871. At that time the Incurved Chrysanthemums were grown to greater perfection than anything. I had previously been in the South. The photograph of the cups, which you ask me to lend you, indicates that I have been an exhibitor at all the principal shows since that time, including Liverpool, Hull, Westminster Aquarium, York, Kingston, and Wimbledon. Some of the cups and medals were awarded for fruit, and stove and greenhouse plants. Moreover, as the photograph was taken more than six years ago, I have, in addition, several cups and gold and silver medals which I took for Roses."

ALFRED WILCOX.

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It is very advisable to thin out the trusses of bloom on choice fruit trees, when these are heavily laden; this reduces the strain on the trees, and gives them a better chance of setting plenty of fruit.

Although usually regarded and treated as greenhouse plants, Bouvardias succeed capitally, as a rule, when planted out in a sheltered bed of light, loamy soil, early in June. When so treated, they grow with great vigour, and bloom profusely, and, in the autumn they may be lifted and potted for use the next season.

# Letters from a Lady Gardener.

## No. 91.—PLANTS FOR THE WINDOW BOX, FERNS AND MELONS.

DEAR KATE,—For your window boxes in summer you should now prepare the plants, so as to have them in bud or bloom when you put them into the boxes at the end of May. For a sunny window box there is nothing better than Ivy-leaved Pelargoniums, and I hope you have some good plants of these, especially such varieties as Madame Thibaut, Madame Crousse, etc., which are specially floriferous, with soft pink blooms. The plants should not be repotted now, if possible, but only top-dressed with good soil, placed near the glass in the greenhouse, and well fed with liquid manure. They will then produce plenty of bloom, but if repotted they make more wood than flower-buds. They look best hanging over the edge of the box, but if you mean to fill the box with them the second row should be trained on crossway stakes (which must be small and neat), to raise them above the first row. Petunias, too, which love the sunshine, are excellent plants for a sunny position; to have good plants of these now, it is necessary to sow the seed very early in the year, or even, still

DOUBLE TUBEROUS BEGONIA.

better, in October or November, for the following spring, keeping them warm and rather dry through the winter months, and potting up the seedlings in February. The fine, large varieties, of which I send you a photograph, are very varied in tint, and many of them are of the rich shade of Petunia purple, which, though beautiful in itself, does not harmonise with other red flowers, so that it is best to grow them in a window box by themselves, unless you add white flowers and foliage plants. We often use a handsome plant of the white Hydrangea Dr. Hogg (which is always a mass of bloom) for the centre of a window box, with lower flowers at the sides, as the plant in the middle should be higher than the rest. Few things look better than a well-grown Palm in the centre, with flowers below it, but you should not turn either this or a Hydrangea out of its pot—only sink these in the soil, and keep the plants abundantly watered, for they need a great deal of moisture in such a position. Nice little Grevilleas (robusta), about a foot in height, make good central plants, too, and neat plants of Anthericum variegatum look well at the corners amongst flowers. These useful foliage plants should be propagated every year by pegging down the little plantlets (which appear after the seeds on the long flower-stems, without having been sown) into a box of spent soil in the greenhouse, when they quickly grow into nice little specimens, and can be cut off and potted up singly. We find them very useful as room plants in winter, and for boxes and the conservatory, in summer; the old plants get untidy in time, and should then be thrown away. For a shady window box we pot on the old Fuchsias, which were cut back in the early spring, and then placed in small pots after shaking out the soil; they hang over the box very gracefully, and produce flowers all through the summer. Then the Begonias, both fibrous kinds (such as Weltoniensis, Worthiana, etc.), and the tuberous varieties of Begonia, are simply lovely in a rather shady box, and you can now bring on the tubers in warmth, for they like this in their earlier stages, although they must always have air, as well as a moist, warm atmosphere. Be sure to keep the tubers well above the soil in potting them, and do not over-water them, for they have a horrid plan of rotting off instead of starting their roots, if kept too damp at first. But when Begonias are in full growth they need plenty of water, their stems are so succulent and heavy that if they once droop they cannot recover themselves, and the plant is either sadly crippled for the season, or else dies. The smaller-flowered and very floriferous tuberous Begonias are the prettiest of them all, I think, for a window box or a basket, but the gigantic double Begonias, and also the single-flowered kind, have their admirers, and all are lovely. Fortunately, amongst a batch of seedlings from a good strain one gets all kinds of flowers, double and single, so if you have not got plenty of them you had better sow some good seed towards the end of June, when the tiny seeds will germinate in a Vinery or greenhouse without fire heat. But you must not cover the seeds with soil—only mix them with a pinch of fine white sand, and pepper them on to the surface of a shallow box of drainage and soil, covered with a little very finely-sifted spent soil. Never water the box or pan in which fine seeds are sown with a watering-pot, as this makes the wretched little things float about, and, of course, they die. You should hold the box in a large pan of tepid water until this shows a little at the corners; it will then make the surface moist without disturbing the seed, if you cover the box with a piece or two of broken glass, admitting some air, however. All seeds germinate best in a shady position, though they need the light as soon as they are up; a piece of paper is useful, therefore, over the glass for the first few weeks, and remember that the best blooms of the batch of seedlings will be on those which appear last, so take special care of these.

We are now repotting our Ferns, after which they are placed in the warmer Vinery to give them a good start. Adiantums do not require peat, but all the rest are the better for it, and you will find it a good plan to add charcoal to the compost for your Ferns, as it keeps the soil sweet, and helps to nourish them. In repotting Ferns, their roots should be gently loosened and pulled apart (not put into the clean pot in the shape of the last one), and the pot must not be too full, or it will be difficult to supply them with water. We put some of our Adiantums into wire baskets, lined with moss, and then with soil; they make very pretty masses of fronds all over the basket, if you keep them moist enough. The basket should hang in a shady place, not too near the glass, and every day or two we soak ours in the tank of tepid water in the warm house, to ensure thorough moisture.

Melons, which we grow in a frame, and also in the open air, are now being started. We sowed the seeds two or three weeks ago, and the hotbed in the frame has gone down to eighty-two degrees, so that it is time to put in the young plants. Each of these has a little mound of soil to itself, a mixture of rich loam, leaf-

Cannell, Y G. Dodwell's 957, and pink self Midas. 2nd, Mr. W. Read, The Cottage, Stanley Road, Oxford, who had Uncle Tom, Germania, and seedling selfs and fancies. 3rd, Messrs. Thomson & Son.

There were ten stands of six blooms, yellow grounds preponderating, and Mr. A. W. Jones was 1st, with very good blooms indeed of Mrs. R. Sydenham, Victory, Stadtrath Bail, Germania, Dodwell's 1143, and Dodwell's 969. 2nd, Mr. W. Spencer, jun., with Mrs. R. Sydenham, Romulus, Victory, Janira, Madame Van Houtte, and Schlieben. 3rd, Mr. J. W. Foulkes, Chester.

With six yellow grounds out of eleven stands, Mr. C. Harden, Ash, Dover, was 1st, having very fine blooms of Nellie Bath, Annie Douglas, Stadtrath Bail, Countess of Jersey, Romulus, and Dodwell's 961. 2nd, Mr. T. E. Henwood, Reading, with Agnes Chambers, Eurydice, Mrs. R. Sydenham, Lily Henwood, and seedlings. 3rd, Mr. J. Douglas, Bookham.

Certificates of Merit were awarded to Mr. J. Douglas for the following new yellow-grounds:—Mrs. Douglas, Ladas, and Mrs. Drawfield; and to the following border varieties:—Mrs. Audrey Campbell, a soft yellow self; Cardinal Wolsey, a pale ground flower, deeply edged with bright salmon-red; Duke of Orleans, a pale, soft yellow self; and Hayes, scarlet self.

## BEDDINGTON, CARSHALTON, AND WALLINGTON HORTICULTURAL.

The fifth annual exhibition took place on Bank Holiday in the fine grounds surrounding Carshalton Park, and may be recorded as a great success.

Group of plants arranged for effect in a space not exceeding 80 square feet: in this class the 1st prize was well won by Mr. G. W. Cummins, gr. to A. H. Smee, Esq., the active president of the society, for a beautiful arrangement in which plants of Cattleya aurea were made much use of; 2nd, Mr. J. H. Stevens, gr. to E. G. Coles, Esq, whose Crotons were well coloured.

The best four flowering plants, distinct: 1st, Mr. J. Slater, gr. to Mrs. Hulse, with creditable examples; 2nd, Mr. J. Wright, gr. to Mrs. Bridges. Six Gloxinias in flower: 1st, Mr. J. H. Stevens; 2nd, Mr. T. A. Glover. Three specimen Coleus, good coloured examples, from Messrs. A. Etheridge and J. Wright, gained the awards in the order named.

Three Fuchsias: 1st, Mr. A. Etheridge; 2nd, Mr. J. Wright; nicely flowered examples. Six Exotic Ferns: fine specimens gained Mr. J. H. Stevens the premier award; 2nd, Mr. J. Slater. Tuberous Begonias presented a bright patch of colour, the 1st and 2nd prizes going to Messrs. J. Slater and E. Etheridge.

Cut Roses taking 1st honours were well shown by Mr. G. W. Cummins; 2nd, Mr. J. H. Stevens. In the class for hardy herbaceous flowers, the prizes for well selected and bright collections went to Messrs. J. Slater and G. W. Cummins.

*Fruit.*—The last-named exhibitor took the leading prizes for single dishes of Nectarines (Dryden) and Peaches (Stirling Castle). In the class for three bunches of Grapes the awards went, for fine fruit, to Messrs. H. Shorbridge and J. Slater. Green-fleshed Melon, for flavour: 1st, Mr. D. Harris; 2nd, Mr. J. Davis. Brace of Cucumbers, nice even examples, gained the prizes to Messrs. J. H. Stevens and A. G. Price.

A very keen competition resulted in the class for a collection of vegetables, nine distinct kinds, open to gardeners and cottagers in the district: 1st, Mr. J. H. Stevens; 2nd, a very creditable exhibit for a cottager, Mr. A. McCrae.

Non-competitive exhibits made an attractive display. We may mention a beautiful lot of hardy flowers, &c., from Mr. John R. Box, Croydon; Messrs. J. Peed & Sons, a nice group of hardy herbaceous flowers; Messrs. J. Laing & Son, a good miscellaneous selection of flowering and foliage plants; the Surrey Seed and Fruit Orchards Company; table decorations from Miss Cooper; and flowers of hardy herbaceous perennials from Messrs. J. Cheal & Sons, Crawley.

A remarkable display of flowers, fruit, and vegetables was made by the cottagers of the district, and in the afternoon the Right Hon. Jesse Collings, M.P., gave an interesting and instructive address on garden allotments, &c., to a crowded audience. Mr. John Wright also gave an address, with object lessons, showing the effects of right and wrong methods in the production of vegetables and fruit, which was listened to with great attention.

In the Conference tent was an excellent display of vegetables from the Continuation School Gardens, under the auspices of the Surrey County Council Technical Education Committee. This attempt—and a very successful attempt it was—is noteworthy by reason of its being the first that has been made in this country. We look to great things in this direction in the future; now that such a good start has been made the idea is capable of much expansion and an infinity of good resulting to the participators in it. It was very interesting to observe the different effects of soil on the same vegetable, this information being given with each exhibit. A deserved Award of Merit was given in each case.

The show was well managed by Mr. G. W. Cummins, the Hon. Secretary.

## NURSERY NOTES.

### MR. JOHN R. BOX'S, CROYDON.

Since 1876, when the tuberous-rooted Begonia may be said to have been put into commerce, the proprietor of this nursery has done much to improve this now deservedly popular flower, and a recent visit shows him to be still in the van of progress. In looking over the doubles it was observed that most of the old pendulous varieties have been discarded, those now in favour having almost an erect poised flower, very large and full, and some of them may be grown without any supports being needed, being stocky and short-jointed, invaluable therefore for the greenhouse and conservatory. A few varieties (amongst the many observed) may be noted. Beauty of Belgrove: in colour and form of flower this resembles the well-known La France Rose, beautiful silvery pink, flowers large and very fine. Mrs. Cannell is a great beauty, creamy-white, perfect in shape. Primrose Queen, light yellow, most beautifully shaped of its colour. Henshaw Russell, glowing scarlet flowers of fine form and great substance, good habit. A good acquisition is J. E. Midson, fine scarlet, free flowering. A new variety not yet introduced to commerce has just been named Prince Edward, a plant of very good habit, bearing bright scarlet rosette-shaped flowers. A superb variety is Mrs. Castle, of a beautiful salmon shade, quite distinct. Octavie is a very pretty white Camellia-like flower, remarkably free-flowering, dwarf, and for cut blooms it is invaluable. Rev. E. Lascelles is a very fine deep yellow, flowers well formed and free; splendid habit; one of the best. Mrs. Stephenson is a soft rose, delicate shade, large flowers. Hollyhock, pink, medium-sized flowers, quite upright, a favourite. Triomphe de Nancy, delicate pale yellow, broad petals, like a Tea Rose; a grand variety. Hon. Mrs. Bertie, creamy white, beautiful shape, perfectly upright; a great beauty. Another good creamy white is Mrs. French, very large imbricated flowers, vigorous habit; a fine variety. Madame Pfitzer is a rich yellow, flowers medium sized. A good collection of singles was also observed in superb colours as dark crimson, crimson, brick-red, scarlet or vermilion, blush pink, rosy pink, rose, deep rose, pure white, primrose yellow, rich yellow, golden yellow or bronze, orange scarlet, copper or apricot, and salmon or flesh.

In a week or two hence the bedded-out Begonias will be a grand sight at this Nursery, judging from present appearances. Some 100,000 are used for this purpose, and in all the popular colours, the aim which has been attained being to get dwarf stocky plants producing upright flowers on short stalks, so as to ensure the most effective results. Mr. Box is marching with the times in having a good and comprehensive collection of hardy herbaceous plants, containing all the most desirable plants amongst this popular class. *J. B.*

## Obituary.

George Medland.—This patriarchal florist and hybridiser passed away at noon on Friday, August 3, 1894, in his eighty-seventh year, from sudden stoppage of the heart. Seventy-two years ago George Medland commenced a seven years' apprenticeship with the late Mr. Chas. Sclater, at the old Summerlands Nursery, Exeter, and remained in his service for over twenty years. In one of his many notes to me on gardening he refers to that far-off period, speaking of Sclater's Gardens on Southernhay, and that they grew fruit, flowers, and vegetables for market; and also of other gardens in Holloway Street, where they had a fine stretch of brick walls, on which Apricots, Nectarines, and Peaches were in full vigour, producing splendid fruit, and even at that time fetching good prices (3*d*., 4*d*., and 6*d*.). Salading was also a paying crop. One of his favourite flowers—the Carnation—was cultivated extensively, for he remarks that every year several hundreds in pots were grown for blooming, and there was a canvas screen for sheltering them when needed; also all the leading kinds of named Auriculas, Polyanthuses, and Pinks. North-country Pinks were small and thin, but beautifully laced, and were inferior to the larger and fuller flowers of the southern growers. Barrett's Conqueror, Davey's Britannia, Lady Albemarle, and Davey's Earl of Uxbridge were great favourites. Davey of Chelsea was a florist of some note. At that time Mr. Sclater visited London, and made a selection of Pelargoniums, which were then quite unknown in the Exeter district, as only some Cape scarlets and zonals, with a few tuberous-rooted kinds, were grown. These new Pelargoniums created a great sensation in Devonshire, and many of them were Davey's seedlings. Thomson, of Mile End, about the year 1828 was selling off his fine collection of Camellias, and Mr. Sclater bought many of them, including fine specimens of Double White and Chandleri. How to get them to Exeter was a difficulty, the only conveyances being waggons and stage coaches, so he went to Topping's Wharf, and arranged with the captain of an Exeter trading ship. Fortunately the wind was fair and the passage quick, and so all arrived safe and sound. With regard to gardening at Exeter, Mr. Medland states that there were amateur growers of Tulips, Auriculas, Carnations, Polyanthuses, double Primroses, Turban and Persian Ranunculus, and Hyacinths, and that in the upper part of the city lived numerous serge weavers, most of them having nicely kept gardens behind their houses. These old weavers, it seems, were regular devotees, for they had a real love for their pets. Messrs. Ford & Please had a large nursery in Okehampton Street, afterwards known as Dymond's Nursery. Mr. William Ford also had a large nursery in Longbrook Street, another at Lion's Holt, and one near the Cavalry Barracks. Lucombe, Pince & Co.'s nursery was the oldest, dating from 1720, and so long ago as 1840 that great gardener, the late Mr. Pince, had a rich and varied collection of stove and greenhouse plants and Orchids, including many splendid specimens. The other nurseries are of recent date, except Messrs. Veitch & Sons at the Mount Radford Nursery, but now of the Royal Exotic Nursery, Chelsea. When the Mount Radford Nursery closed, the present nursery in the New North Road was opened by the late Mr. Robert Veitch, and is now known as Veitch's Royal Exotic Nursery, Exeter. But of private gardens there were only a few cultivators of hothouse plants, such as Charles Booth, gardener to the late Mrs. Johnes, of Hills Court, and afterwards gardener at Downes, Crediton, who had a good knowledge of plant-growing. Mr. Johnes had a fine lot of stove and greenhouse plants, as well as ornamental trees and shrubs. The late Mr. John Milford of Coaver House, a famous banker of Exeter, was also a great enthusiast and pioneer of horticulture in those parts, and his gardener, Mr. Camble, used to do Grapes, Pine-apples, and stove plants well. It was in this garden that Mr. Medland first saw Azalea indica alba. An old lady named Miss Weston had nice gardens on Southernhay also, and used to visit her brother in London, and return with new and rare plants, obtained from Loddiges' once famous Nurseries. Dung beds, leaves, and tanner's bark, with the old smoke flues, were in those days the heating mediums, and the first hot-water apparatus known to him in the West of England was by Corbett, gardener at Pencarrow, Cornwall, which was the open trough system, flow and return, and very useful in many ways, and that Mr. John Milford aforesaid had

steam for heating his plant houses at Coaver, but eventually hot water for heating purposes soon became general.

With regard to gardeners of that period, after the Exeter Horticultural Society was formed in 1829 or 1830, Mr. Medland gradually became acquainted with many of them, and on the whole they were a respectable and intelligent lot of men, for there were few changes, and most of them remained in their situations to the last. He could only remember two who were able to retire on their means. A few of the oldest gardeners were Hall, at Powderham Castle; Lawrie and Cleall, Nutwell Court; Lowe, Bystock, Saunders, Luscombe Castle; Saunders, Kitley House; Cragge junr., Killerton Park; Cragge sen., Weare House; Nicholls, Winslade Park; Griffin and Yole, Cowley House; Kemp, Rockbeare Court; Anderson, Glendinning and Barnes, Bicton Park; and Mason, Escott Park.

Mr. Medland was born on February 18, 1808, and was employed in Sclater's Nursery over twenty years; in Russell's Nursery at Sidmouth two years; in Mr. Radford's Nursery with the late James Veitch six years; in Addiscott's Nursery at Saint Thomas seventeen years; and from 1875 to 1890 with the late Messrs. Lucombe, Pince & Co., of the great Exeter Nursery, when from infirmities of old age he gave up, and became a pensioner of the Gardeners' Royal Benevolent Institution. He was naturally a retiring and modest man, kind-hearted and a firm friend, and knew more trees, shrubs, fruits, and flowers, at sight than any man I have so far met with. His knowledge of herbaceous and border plants in particular was extraordinary. Those who can remember Messrs. Lucombe, Pince & Co.'s floral displays, during Dr. Woodman's proprietorship, at most of the more important flower shows, will recall their skilfully grown prize-winners in stove and greenhouse plants and Orchids, &c., and also their gorgeous trays of Carnations, Dahlias, Delphiniums, Gaillardias, Hollyhocks, Irises, Pansies, Pæonies, Pentstemons, Phloxes, Picotees, Pinks, Pyrethrums, Roses, &c. The whole of the latter section being under Mr. Medland's control and management. Moreover, his annual exhibition of 500 specimen Chrysanthemums at the Exeter Nursery was also noteworthy. *W. N.*

# MARKETS.

*COVENT GARDEN, August 9.*

We cannot accept any responsibility for the subjoined reports. They are furnished to us regularly every Thursday, by the kindness of several of the principal salesmen, who revise the list, and who are responsible for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the week preceding the date of our report. The prices depend upon the quality of the samples, the supply in the market, and the demand; and they fluctuate, not only from day to day, but often several times in one day. ED.]

CUT FLOWERS.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Arums, per doz. bl.... | 2 0 | 3 0 |
| Asters, French, p. bun. | 0 6 | 1 0 |
| Bouvardias, per bun. | 0 6 | 1 0 |
| Carnations, 12 blms. | 1 0 | 3 0 |
| — doz. bun. ... | 2 0 | 4 0 |
| Cornflowers, 12 bun. | 1 0 | 2 0 |
| Eucharis, per dozen | 2 0 | 4 0 |
| Gardenias, per dozen | 1 0 | 3 0 |
| Gladiolus, doz. bun. | 3 0 | 6 0 |
| Lilium Harrisii, doz. | 2 0 | 4 0 |
| — lancifolium, p. bunch | 1 0 | 2 0 |
| — — p. 12 blooms | 0 9 | 1 6 |
| Maidenhair Fern, per 12 bunches ... | 3 0 | 6 0 |
| Marguerites, 12 bun. | 1 6 | 3 0 |
| Mignonette, 12 bun. | 3 0 | 6 0 |
| Myosotis, or Forget-me-Not, doz. bun. | 1 6 | 3 0 |
| Pansies, 12 bun. ... | 1 0 | 2 0 |
| Orchids:— | | |
| Cattleya, 12 blms. | 6 0 | 12 0 |
| Odontoglossum crispum, 12 blms. | 2 0 | 4 0 |
| Pelargoniums, scarlet, p. 12 bun. | 2 0 | 4 0 |
| — 12 sprays ... | 0 4 | 0 8 |
| Pinks, doz. bun. ... | 1 6 | 4 0 |
| Pyrethrums, 12 bun. | 2 0 | 6 0 |
| Roses, Tea, per dozen | 0 6 | 2 0 |
| — coloured, p. doz. | 2 0 | 4 0 |
| — yellow (Maréchals), per doz. | 1 6 | 5 0 |
| — red, per dozen ... | 0 6 | 1 0 |
| — Moss, French, doz. bun. ... | 12 0 | 18 0 |
| — outdoor, doz. bun. | 3 0 | 9 0 |
| Stephanotis, dozen sprays ... ... | 1 6 | 2 0 |
| Sweet Sultan, 12 bu. | 2 0 | 3 0 |
| Tuberoses, 12 blms. | 0 2 | 0 4 |

ORCHID-BLOOM in variety.

FRUIT.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Apples, half-sieve... | 1 9 | 2 6 |
| Figs, per dozen ... | 1 0 | 2 0 |
| Grapes, 1st quality, black English, per lb. ... ... | 1 6 | 2 0 |
| ,, English, 2nd quality, p. lb. | 0 6 | 1 0 |
| Grapes, Muscat, per lb. ... ... | 2 0 | 3 0 |
| ,, Muscat, 2nd quality, per lb. ... | 0 9 | 1 0 |
| Grapes, Guernsey, per lb. ... ... | 0 9 | 1 0 |
| Melons, each ... | 1 6 | 2 6 |
| Peaches, large, p. doz. | 4 0 | 6 0 |
| ,, small, per doz. ... | 1 0 | |
| Pears, p. sieve, small | 2 0 | 2 6 |
| ,, (Dessert), half-sieve | 3 0 | 4 0 |
| Pine-apples, St. Michael, each ... | 5 0 | 7 0 |
| Plums, half-sieve ... | 2 0 | 3 0 |

PLANTS IN POTS.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Adiantum, per doz. | 4 0 | 12 0 |
| Aspidistra, per doz. | 12 0 | 30 0 |
| — specimen, each | 7 6 | 21 0 |
| Calceolarias, per doz. | 3 0 | 6 0 |
| Cyperus, per dozen... | 4 0 | 10 0 |
| Dracæna, each ... | 1 0 | 5 0 |
| Ericas, various, p. dz. | 9 0 | 24 0 |
| Evergreen Shrubs, in var., per dozen ... | 6 0 | 24 0 |
| Ferns, various, doz. | 4 0 | 12 0 |
| — small, per 100 | 4 0 | 8 0 |
| Ficus elastica, each | 1 0 | 7 6 |
| Foliage plants, doz. | 9 0 | 24 0 |
| Fuchsias, per dozen | 4 0 | 6 0 |
| Heliotropes, per doz. | 3 0 | 6 0 |
| Hydrangeas, per doz. | 9 0 | 18 0 |
| — specimens, each | 2 0 | 3 6 |
| Ivy Pelargoniums, dz. | 3 0 | 6 0 |
| Lilium Harrisii, per dozen ... | 12 0 | 24 0 |
| — lancifolium, pr. dozen ... | 9 0 | 18 0 |
| Lobelias, per dozen... | 3 0 | 4 0 |
| — small, per doz. | 1 0 | 2 0 |
| Marguerites, p. doz. | 6 0 | 12 0 |
| Mignonette, per doz. | 3 0 | 6 0 |
| Musk, per dozen ... | 2 0 | 4 0 |
| Nasturtiums, p. doz. | 1 6 | 4 0 |
| Palms, various, each | 2 0 | 10 0 |
| — specimens, each | 10 6 | 84 0 |
| Pelargoniums, p. doz. | 6 0 | 10 0 |
| — scarlets, p. doz. | 3 0 | 6 0 |
| — scarlets, small, per dozen ... | 1 6 | 2 0 |

VEGETABLES.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Beans, French, half-sieve | 2 0 | 2 6 |
| ,, Runners, half-sieve | 2 0 | 2 6 |
| Cauliflowers, p. doz. | 1 6 | 3 0 |
| Cucumbers, per doz. | 2 0 | 3 0 |
| Marrows, per doz. ... | 1 0 | 2 0 |
| Mushrooms, per lb. | 0 6 | 0 8 |
| Peas, per bushel ... | 4 0 | 5 0 |
| Tomatos, per lb. ... | 0 3 | 0 4 |

POTATOS.

Potato market firm. Prices vary from 3*s.* to 6*s.* per cwt. Old Potatos finished.

## SEEDS.

LONDON: *August* 8.—Messrs. John Shaw & Sons, Seed Merchants, of Great Maze Pond, Borough, London, S.E., write that to-day's market was poorly attended, with but little business passing. New Trifolium, both French and English, is now enquired for, at the low rates prevailing. Samples of this season's new English Rape and Rye, offer at moderate figures. There is no notable alteration in Canary-seed; Hempseed dull. Other articles, at this quiet season, attract but little attention.

## FRUITS AND VEGETABLES.

BOROUGH AND SPITALFIELDS: *August* 7.—Quotations:—Cabbages, 2*s.* 6*d.* to 4*s.* per tally; Carrots, 1*s.* 6*d.* to 2*s.* 6*d.*; Turnips, 1*s.* 6*d.* to 2*s.*; Parsley, 1*s.* 6*d.* to 2*s.* per dozen bunches; Onions, Egyptian, 3*s.* 6*d.* to 4*s.* 6*d.* per cwt.

STRATFORD: *August* 7.—The supply to this market during the past week has been excellent, and, with a large attendance of buyers, a brisk trade has been done as under:—Cabbages, 1*s.* 6*d.* to 3*s.* per tally; Lettuce, 6*d.* to 10*d.* per score; frame Cucumbers, 1*s.* 6*d.* to 2*s.* 6*d.* per dozen; Green Peas, 5*s.* 6*d.* to 6*s.* per bag; Plums, English, 2*s.* 6*d.* to 3*s.* 6*d.* per half-sieve; do., foreign, 1*s.* 6*d.* to 2*s.* 3*d.* per box; Green Gages, foreign, 1*s.* 3*d.* to 1*s.* 6*d.* per box; red Currants, English, 2*s.* to 2*s.* 6*d.* per half-sieve; black Currants, 3*s.* to 3*s.* 6*d.* do.; Turnips, 2*s.* to 2*s.* 6*d.* per dozen bunches; Carrots, household, 2*s.* to 3*s.* per bag; Mangels, 25*s.* to 30*s.* per ton; Onions, Egyptian, 4*s.* 6*d.* to 5*s.* per bag; Apples, English, 2*s.* 6*d.* to 3*s.* 6*d.* per half-bushel; Watercress, 6*d.* per dozen.

FARRINGDON: *August* 9.—Quotations:—Cabbages, spring-planted, 4*s.* to 5*s.* 6*d.* per tally; autumn do., 2*s.* 6*d.* to 4*s.* do.; Carrots, 2*s.* per dozen bunches; Turnips, 1*s.* 6*d.* to 2*s.* do.; Scarlet Runners, 5*s.* 6*d.* to 6*s.* per bushel; Vegetable Marrows, 3*s.* to 4*s.* per tally; Plums, green, 1*s.* 6*d.* to 1*s.* 9*d.* per half sieve; 3*s.* to 3*s.* 6*d.* per bushel; ripe Plums, 4*s.* per half bushel; Apples, Lord Suffield, 3*s.* to 3*s.* 6*d.* per half-sieve; Gooseberries, 2*s.* 6*d.* to 3*s.* per half sieve; Red Currants, 2*s.* to 3*s.*; Black do., 2*s.* to 3*s.* per half sieve; Cucumbers, 1*s.* 6*d.* per dozen; Tomatos, 6*d.* per lb. English; Melons, 11*s.* per case Grapes, 8*s.* per barrel; Greengages, 3*s.* per half sieve; Pears, 6*s.* per bushel.

## POTATOS.

BOROUGH AND SPITALFIELDS: *August* 7—Quotations ranged between 60*s.* and 80*s.* per ton.

FARRINGDON: *August* 9.—Quotations:—Essex Hebrons, 70*s.* to 80*s.*; Sutton's Abundance, 70*s.* to 80*s.*; Magnums, 60*s.* to 70*s.*; Bedfordshires: White Hebrons, 80*s.* to 90.; Puritans, 80*s.* to 90*s.*; Snowdrops, 80*s.* to 90*s.*; Reading Giants, 70*s.* to 80*s.* per ton.

LONDON AVERAGES: *August* 8.—English Kidneys, 80*s.* to 90*s.*; Hebrons, 70*s.* to 80*s.*; Snowdrops, 70*s.* to 90*s.*; Rounds, 60*s.* to 74*s.* per ton.

## HAY.

*Averages.*—The following are the averages of the prices at the principal metropolitan markets during the past week:—Clover, prime, 110*s.* to 138*s.*; do., inferior, 80*s.* to 120*s.*; do., new, 75*s.* to 130*s.*; hay, best, 100*s.* to 130*s.*; do., specially picked, 140*s.*; do, inferior, 60*s.* to 100*s.*; do., new, 70*s.* to 90*s.*; Mixture, 90*s.* to 130*s.*; and Straw, 43*s.* to 63*s.* per load.

## CORN.

*Averages.*—Official statement of the average prices of British Corn, imperial measure (qr.), for the week ending August 4, and for the corresponding period last year:—1894: Wheat, 24*s.* 4*d.*; Barley, 21*s.* 4*d.*; Oats, 18*s.* 8*d.* 1893: Wheat, 20*s.* 2*d.*; Barley, 21*s.* 8*d.*; Oats, 21*s.* 5*d.*

# ENQUIRY.

"*He that questioneth much shall learn much.*"—BACON.

BERBERIS MAHONIA.—Is the fruit of the above shrub fit for domestic purposes? A gentleman calling on me lately and seeing the plants much laden with berries, told me he always made them into wine, and after keeping a short time was quite equal to port. *W. Divers.*

# THE WEATHER.

[The term "accumulated temperature" indicates the aggregate amount, as well as the duration, of degrees of temperature above or below 42° Fahr. for the period named: and this combined result is expressed in Day-degrees—a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| Districts. | Temperature. Above (+) or below (—) the Mean for the week ending August 4. | Temperature. Accumulated. Above 42°, for the Week. | Below 42°, for the Week. | Above 42°, difference from Mean since January 1, 1894. | Below 42°, difference from Mean since January 1, 1894. | Rainfall. More (+) or less (—) than Mean for the Week. | No. of Rainy Days since Jan. 1, 1894. | Total Fall since Jan. 1, 1894. | Bright Sun. Percentage of possible Duration for the Week. | Percentage of possible Duration since Jan. 1, 1894. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | 10ths Inch. | | Ins. | | |
| 0 | 4 + | 116 | 0 | + 309 | — 51 | 0 aver | 137 | 32·8 | 26 | 25 |
| 1 | 2 + | 116 | 0 | + 40 | + 8 | 7 + | 125 | 22·9 | 25 | 35 |
| 2 | 0 aver | 123 | 0 | + 104 | — 51 | 1 — | 124 | 15·3 | 27 | 34 |
| 3 | 0 aver | 137 | 0 | + 121 | — 100 | 4 — | 116 | 14·9 | 35 | 37 |
| 4 | 1 + | 132 | 0 | + 144 | — 79 | 1 + | 118 | 14·7 | 26 | 34 |
| 5 | 0 aver | 137 | 0 | + 138 | — 119 | 4 + | 115 | 16·9 | 27 | 28 |
| 6 | 2 + | 123 | 0 | + 100 | — 69 | 5 + | 136 | 31·5 | 27 | 33 |
| 7 | 1 + | 129 | 0 | + 207 | — 121 | 7 + | 132 | 21·3 | 27 | 34 |
| 8 | 0 aver | 126 | 0 | + 146 | — 81 | 2 + | 133 | 23·2 | 29 | 38 |
| 9 | 2 + | 123 | 0 | + 83 | — 33 | 3 — | 147 | 24·7 | 29 | 31 |
| 10 | 0 aver | 120 | 0 | + 131 | — 67 | 1 + | 140 | 25·4 | 24 | 33 |
| * | 2 — | 126 | 0 | + 231 | — 18 | 9 + | 136 | 21·3 | 25 | 42 |

The districts indicated by number in the first column are the following:—

0, Scotland, N. *Principal Wheat-producing Districts*—1, Scotland, E.; 2, England, N.E.; 3, England, E.; 4, Midland Counties; 5, England, including London, S.

*Principal Grazing, &c., Districts*—6, Scotland, W.; 7, England, N.W.; 8, England, S.W.; 9, Ireland, N.; 10, Ireland, S.; *Channel Islands.

## THE PAST WEEK.

THE following summary record of the weather throughout the British Islands for the week ending August 4, is furnished from the Meteorological Office:—

"The *weather* during this week was again in an unsettled condition, with frequent rain, and occasional thunderstorms in nearly all parts of the kingdom. The rain experienced at the opening of the period was very heavy at most of the southern and south-western stations, and that of Aug. 2 and 3 was equally so in Scotland and several of the more northern parts of England.

"The *temperature* continued a few degrees above the mean over 'Scotland' and in 'Ireland, N.,' and slightly exceeded it in the 'Midland Counties' and 'England, N.W.;' in most other districts the values just equalled the normal, but in the 'Channel Islands' there was a deficit of 2°. The highest of the maxima, which were recorded during the earlier part of the week, ranged from 83° in 'Ireland, N.' (at Londonderry), to 74° in 'Scotland, E.' and 'Ireland, S.,' and to 66° in the 'Channel Islands.' The lowest of the minima were registered on somewhat irregular dates, and ranged from 43° in 'Scotland, E.,' to 50° in 'England, S.,' and 'England, N.W.,' and to 54° in the 'Channel Islands.'

"The *rainfall* was less than the mean in 'England, N.E. and E.,' as well as in 'Ireland, N.;' while in 'Scotland, N.' the normal was just equalled. In all other districts there was an excess, that in 'Scotland, E.,' 'England, N.W.,' and the 'Channel Islands' being large. The largest amounts measured at any individual stations were 1·53 in. at Eastbourne, which fell between 1 P.M. and 8 P.M. on July 29, and 1·96 in. at Braemar, 2 in. at Glenlee, and 2·22 in. at Bigrigg, Cumberland, which fell during the twenty-four hours ending on the morning of August 3.

"The *bright sunshine* was less than the normal in all districts excepting 'Scotland, N.' and 'Ireland, N.' The percentage of the possible duration ranged from 35 in 'England, E.,' to 25 in the 'Channel Islands' and 'England, E.,' and to 24 in 'Ireland, S.'"

merce, thousands of bushels being annually picked and sold in the markets. In the bright autumnal weather, when the early frosts are beginning to pinch vegetation, nutting commences, and is carried on on a large scale, nuts being gathered by the waggon load. No pleasanter pastime than this can well be imagined at a season when all the discomforts of summer seem to have vanished, leaving nothing but genial warmth by day, and bracing coolness by night. A Canadian "nutting" is not soon forgotten by anyone who has, for business or for pleasure, once spent a day in the woods in search of the "shell fruits,' which they produce in such abundance.—*Colonies*

## PROPAGATING.

### YUCCAS.

ALL or nearly all of the Yuccas may be propagated freely from the roots, but it is concerning the choice kinds, such as the variegated forms of Yucca aloifolia, filamentosa, and quadricolor, so useful for indoor decoration during the winter or, in fact, at all seasons, that I propose to speak. Where fair-sized plants of these kinds exist, they may be propagated without in any way injuring them or detracting from their appearance in this way. Turn the plant carefully out of the pot, when several large roots, or rather underground buds, will in all probability be found protruding through the sides of the ball. These should be cut off, and the operation may often be done in such a manner that a few fibres remain attached thereto; indeed, always endeavour to secure them in this way, but if the present appearance of the plant is to be considered, do not disturb the ball for that purpose, as the buds or eyes when removed soon push forth fibres of their own. As the embryo plant occupies the point of the removed root, it must not be cut off too closely, but should if possible be left a couple of inches long, though that cannot always be done. When all the buds are removed the plant may be replaced in its pot. If not in large pots, turn the plants out just as in repotting, that is, support the ball with the left hand and remove the pot with the right. That done, the right hand will be at liberty to cut off the eyes, and when finished, the pot may be dropped on again without disturbing a single crock. After this go over the excised portions and prepare them for repotting, that is remove any spots of decay that may possibly exist thereon and if too long or of an inconvenient shape cut them a little shorter. The pieces well provided with fibres may be potted singly in sandy soil, keeping the point of the root from which the new growth will proceed just below the surface of the soil: those not so provided with roots may be put in pans till growth takes place. Place some crocks in the bottom of the pan, and over them a layer of sandy soil, then another layer of pure sand, and after that stand the eye in a perpendicular position, and fill the space between them also with pure sand in such a way that every bit is quite surrounded by it. Then fill up the pan with soil keeping the eyes about half an inch below the surface. When done set them on a shelf in a moderately warm house and keep them just moist but do not allow them to become wet, as the fleshy roots speedily decay from excess of moisture. So treated they soon push forth both leaves and fibres, and when sufficiently advanced may be potted off.

**Another way** is to lay the buds in Cocoa-nut fibre (just covering them with it) where they can have a little bottom-heat. In this way they also do well, but such conveniences are frequently wanting, and then the first named plan must be carried out. Where tall and ungainly plants exist they may be utilised to obtain a good stock of small ones by cutting up both roots and stem. Take off the head with just enough stem to form a good plant when rooted; then cut up the remaining portion in lengths of from 6 in. to 1 ft., and lay them if possible in Cocoa-nut fibre. Space may be saved by putting them in between the pots on a bottom-heat bed—such, for instance, as that in which Palms and such things are growing. After being for some time in this situation young leaves will commence to push through the fibre, but it is better to let them grow and form thrifty little plants before removing them, as if taken off at once the young portion will have no roots, and a part of the old stem must remain attached thereto for its support, while after a time fibrous roots are pushed forth from the base of the new growth, and if cut off then a young and vigorous plant is obtained without depending on the old stem, and the latter can be returned to its place to push forth more buds. In this way old pieces of the stem will often produce young plants for a long time with a little attention, such as thoroughly cleaning them when taken up by cutting out any symptoms of decay, and just surrounding them with new fibre when put in their place again. Even if the young plants have good roots when potted they are better kept close for a few days till they recover from the check. The head of the plant when cut off may be either struck in the fibre or potted in as small a pot as possible, using sandy soil and some broken crocks mixed with it. Where no such place exists as that just spoken of in which to lay the stems, they may be placed in boxes or pans of light soil, and set in a warm house, but the first named method involves much less trouble, and yields as a rule the best results. T.

## OBITUARY.

THIS neighbourhood has just now sustained a loss which, I think, should have a tributary notice in your columns. I refer to the death of Mr. Edward Meehan a few days ago at the ripe age of eighty-four years. For more than half a century he has been in charge of the beautiful gardens at St. Clare, which are rather more than a mile from Ryde. For considerably more than forty years he was in the service of the late Colonel Francis Vernon Harcourt, formerly member for the Isle of Wight, and latterly he has been in that of his brother, Mr. Egerton Vernon Harcourt. Mr. Meehan has passed away from us amid the sincere regrets of his numerous friends in this place. It was impossible to know him without forming a great regard for him. He had a kindly open-hearted sort of way which was very attractive. But it is more especially as a gardener and very devoted lover of flowers that this reference is made to him. Mr. Meehan lived for his trees and his plants, and they paid him back in full. It was very interesting to walk with him through one of the most beautiful gardens in the kingdom—his own creation under his master's eye at St. Clare—and to hear him tell how fifty years ago he turned out some magnificent tree—when yet a sapling—from a small pot, or planted some striking shrub which has now attained to great size. There is a Pinus insignis in these grounds which looks as though a century had passed over its head, and which Mr. Meehan remembered when it was only a foot high. And in addition to this a Judas tree, which is quite worthy of the environs of Smyrna itself; a Paulownia imperialis, which is smothered in a cloud of innumerable bluish blossoms in early spring; an Edwardsia grandiflora which grows over the south side of the house in golden profusion; Fuchsias which are now of towering dimensions; Myrtle trees in abundance: Magnolias which seem to have been cheated into a belief that they are in the Southern States of America; Camellias doing well in the open air; Rhododendrons that must be from 12 feet to 15 feet high, and which arch over one's head, so as to form a canopy over a broad gravel path; some Arbutuses of the rarest sorts—all these and other things far too numerous for mention in this place were for many years the subjects of his fostering care, and they were like children in his hands. But it is also as a successful grower of Roses, and the winner of the highest prizes at the local shows, that Mr. Meehan will be remembered in the Isle of Wight. The Rose was his favourite flower, and no one could permanently wrest from him the supremacy to which he attained in cultivating it. The St. Clare stand for cut blossoms used to be unrivalled in its way, and a very enchanting sight it was when it had just been set up with the greatest assiduity and skill. But all this has now come to an end. The trees and shrubs will not be less beautiful in the gardens of St. Clare than they have been in bygone years, but the voice of the interpreter will no more be heard among them. Mr. Meehan had a strong scientific turn about him as well as much practical knowledge. In his early days he was very fond of the study of botany, and he gave a great deal of time to it. It was curious to note how, when mind and memory failed him towards the close of his life, the sight of a favourite flower seemed to quicken his drooping faculties at once. When he had begun to take little notice of what was passing around him, and old and familiar things were slipping from his grasp, he was often able to give with accuracy the botanical name of a plant and to say a good deal about it. His kind employers, Mr. and Mrs. Egerton Harcourt, knew full well how to bring a smile on the old man's face. The best Roses of the season were the truest cordials for him, and they were freely sent to him. Quite up to the end Roses and other choice flowers were strewn in profusion over his bed, and he seemed to be all the happier for the solace they gave him. His was no perfunctory round of duties carried on for a livelihood, and only for that; it was the devotion of mind and heart to a favourite study of which he never tired through life. It should be noted here that Mr. Meehan has handed on the torch of science to his son, Professor Meehan, a well-known botanist of the United States, and editor of the *Gardener's Monthly*, a valuable work on American horticulture. He has left behind him a family of several grown-up sons and daughters, and more than one of them is treading in his steps. The gardening fraternity have assuredly sustained an immense loss in his death, and the Isle of Wight in everything that has to do with trees or plants will not soon meet with his equal. H. E.

*St. John's, Ryde.*

**Labels.**—Thick paper for temporary labels for nurserymen has been recommended. Those which we receive on our importations are frequently illegible from the destruction of the paper by moisture. The best labels for nurserymen we find to be wooden ones with a smooth surface, over which has been rubbed with a cloth a very thin coating of white lead paint. They should be fastened to the plant with copper wire. The best cheap permanent label is a strip of bright zinc, written upon with chloride of platinum, sold in the shops for the purpose. A strip of zinc written upon with a common lead pencil is also legible after many years. They should be fastened on the trees with galvanised iron wire, as they will soon cut through copper wire and fall to the ground.—S. B. PARSONS, *Flushing, N.Y.*

**Seedling Ageratum** (*M. & Co.*).—We cannot fully judge of the merits of your seedling Ageratum, M. Mobillion, at this season, but it has the appearance of being a good kind.

**Names of plants.**—*Anon.*—1, Erythrotis Beddomei; 2, Coccoloba platyclada.——*S. D.*—1, Salvia splendens; 2, S. ianthina; 3, S. cacaliæfolia; 4, cannot name; 5, S. Bruanti, a variety of No. 1; 6, S. Hoveyi, a variety of No. 2.——*P.*—Cupressus Lawsoniana.——*D. P. G.*—Selaginella Mertensi.——*E. Rustel.*—1, Asplenium bulbiferum; 2, A. Trichomanes; 3, A. Adiantum nigrum; 4, species of Peperomia.——*Chrysanth.*—We do not undertake to name florists' flowers.——*A. B. C.*—1, Aster Reevesi; 2, A. Novæ-Angliæ roseus; 3, A. turbinellus; 4, Solidago Virgaurea.——*W. H. C.*—Next week.——*Norman.*—Salvia Horminum; blue flower is Gentiana acaulis.——*Dr. P.*—Promenæa citrina variety, Cœlogyne speciosa (fine form).

COMMUNICATIONS RECEIVED.

I. L.—F. G.—W. J. M.—J. S. W.—J. G.—W. W. R. G.—W. T.—J. H.—A. D.—V. A. & Co.—R. B. S.—Delta. J. C.—J. S. W.—J. S.—W. M.—P. G.—J. S. W.—W. W.—W. G. S.—E. G. L.—J. D.—P. I.—W. P. R.—T. B.—J. C. W. C.—S. W. J. S.—Cambrian.—W. J. M.—H. W.—E. B.—A. J. F.—D. T. F.—L. Society.—A. K.—B. W. G.—J. H.

**MEE George Samuel.**

Personal Estate £498 10s.

16 January. Administration of the Personal Estate of George Samuel Mee late of Llanelly in the County of **Carmarthen** Newspaper Editor who died 12 November 1876 at Llanelly was granted at **Carmarthen** to Elizabeth Mee of Mina-street Llanelly Widow the Relict.

**MEE Hannah.**

Personal Estate £150 1s. 2d.

21 October. The Will of Hannah Mee late of Bury St. Edmunds in the County of **Suffolk** Widow who died 8 June 1882 at Bury St. Edmunds was proved at **Bury St. Edmunds** by Frank Summers of Bury St. Edmunds Chemist the sole Executor.

**MEE William.**

Personal Estate £234 10s. 4d.

10 January. The Will of William Mee late of Mansfield in the County of **Nottingham** Grocer and Provision Dealer who died 12 November 1881 at Mansfield was proved at **Nottingham** by Mary Mee of Mansfield Widow the Relict and George Newton of Mansfield Gardener the Executors.

**MEECH Jane.**

Personal Estate £5.

25 April. The Will of Jane Meech (Wife of Jehu Jacob Meech) late of 1 Stafford-cottages Chapel-road Lower Norwood in the County of **Surrey** who died 17 November 1881 at 1 Stafford-cottages was proved at the **Principal Registry** by the said Jehu Jacob Meech of 1 Stafford-cottages Brewer's Clerk the sole Executor. Probate being granted under certain Limitations.

**MEECH Rhoda Radigan.**

Personal Estate £2,214 14s. 5d.

29 June. Administration of the Personal Estate of Rhoda Radigan Meech late of Peckham House Asylum Peckham in the County of **Surrey** Spinster who died 12 June 1882 at Peckham House Asylum was granted at the **Principal Registry** to Frank Meech of Cowley Cottage Cowley-road Leytonstone in the County of Essex Merchant's Clerk the Brother.

**MEEHAN Edward.**

Personal Estate £1,304 8s. 10d.

12 December. The Will of Edward Meehan late of St. Clare Cottage St. Clare in the Parish of St. Helen's in the Isle of Wight in the County of **Southampton** Gardener who died 26 October 1882 at St. Clare Cottage was proved at **Winchester** by Charles Meehan Gardener the Son and Helen Meehan Spinster the Daughter both of St. Clare Cottage the Executors.

**MEEK Amelia.**

Personal Estate £3,882 4s. 5d.

27 September. Administration of the Personal Estate of Amelia Meek late of Brantridge Park near Balcombe in the County of **Sussex** Widow who died 15 December 1874 at Brantridge Park was granted at the **Principal Registry** to Constance Amelia Meek of West Town in the Parish of Backwell in the County of Somerset Spinster the Granddaughter and one of the Next of Kin.

**MEEK Charles.**

Personal Estate £1,410 6s. 6d.

24 March. The Will of Charles Meek late of 39 Botolph-lane in the City of **London** Plumber who died 9 December 1881 at 748 Old-Kent-road in the County of Surrey was proved at the **Principal Registry** by Martha Meek of 748 Old-Kent-road Widow the Relict the sole Executrix.

**MEEK Daniel.**

Personal Estate £2,193 5s. 5d.

11 July. The Will with two Codicils of Daniel Meek late of Stratford Bridge in the Parish of Ripple in the County of **Worcester** Gentleman who died 30 March 1882

and of the collection of Cacti and succulents, work enough for two men as the departments were then arranged, but after a time he was relieved of the charge of the herbaceous department. During the eight years he had charge of these departments, he had much to do with the propagation and dispatch of important economic plants to British settlements in distant parts of the world.

In 1879 he was appointed Curator of the Botanic Garden at Cambridge, of which he has had the sole charge ever since. From the very first he was indefatigable in increasing the collections cultivated in the garden to such an extent, that after twelve years (1891) a fourth of all the genera in Bentham and Hooker's *Genera Plantarum* was represented there. He was one of the first to form a collection of hardy Bamboos, which soon became a feature of the garden. He designed the new plant-houses in which a very wide range of subjects is cultivated, many of them of especial interest, from which materials for figuring and description in the *Botanical Magazine* have been from time to time supplied, and in which Sir Joseph Hooker has on more than one occasion expressed his high appreciation of the work carried on by Mr. Lynch at Cambridge. He has also enriched our gardens with some beautiful plants, which he has obtained by selection or by hybridisation. One of the earliest was Campanula isophylla alba, which was raised by him at Kew; and latterly, the fine strain of hybrid Cinerarias raised at Cambridge, of which he himself has given a full account in the Hybrid Conference Report of the Royal Horticultural Society.

Mr. Lynch has been a liberal contributor to the horticultural press for upwards of thirty years; he commenced early at Kew with a weekly, sometimes fortnightly, article in the *Journal of Horticulture*, and about the same time he began to send communications to the *Gardeners' Chronicle*. He has occasionally contributed articles to *The Garden*. In 1886 he translated Correvon's *Les Plantes des Alpes* for the *Gardeners' Magazine*; and subsequently wrote on tropical aquatics, and the Bog Garden for *Popular Gardening*. He has contributed a new classification of the genus Pæonia to the *Journal of the Royal Horticultural Society*, and also several papers to the *Journal of the Linnean Society*, of which he became an Associate in 1881. He is a member of the Scientific Committee of the Royal Horticultural Society, a corresponding member of the Imperial Horticultural Society of Russia, and an Associate of the Botanical Society of St. Petersburg.

## W. B. LATHAM.

AMONG the gardeners who have been the recipients of the Veitchian Medal, there is none who has more deservedly won the esteem of his fellows than the Curator of the Botanic Gardens, Birmingham. A few weeks since he contributed to the *Garden* an interesting account of his career, which we here reproduce, as it formed the basis for the remarks made by Sir Trevor Lawrence in presenting Mr. Latham with one of the medals.

"At an early period of my life I commenced work in the garden of Mr. William McNiel, Wandsworth Common. Mrs. McNiel was a great lover of gardening, with a good knowledge of hardy herbaceous plants, and cultivated a choice collection of them. I left here after 3½ years' service, and was then apprenticed to the late Mr. Robert Neal, of the old Wandsworth Common nurseries, which at that time contained a large collection of hardy trees, shrubs, Roses, herbaceous, and alpine plants. I remained here a little over three years, during which time I took up the study of British plants. With an old schoolfellow, the late Mr. C. Wilford, I often took long rambles, and together we collected a large number of plants found in that part of Surrey. With a desire for change, and a wider field for improvement, I went to Kew, and saw Mr. J. Smith, the then curator of the Royal Gardens, and some two or three months after I succeeded in obtaining employment there. I left Kew, then under the direction of the late Sir W. Hooker, in 1857. I had a great desire to study under the late Sir Joseph Paxton, then at Chatsworth, and soon succeeded in obtaining a situation in the gardens there. At Chatsworth I found a large collection of Orchids, embracing noble specimens of Phalænopsis, Dendrobiums, grand masses of Cœlogyne cristata on blocks of wood, Cattleyas, Saccolabiums, Aerides, Pleiones, and many others. There was a fine plant of Amherstia nobilis, and the Victoria Regia was in the highest state of perfection. The noble conservatory, with its wonderful collection of rare, tropical, and sub-tropical plants, excited my admiration. Outside the gardens and grounds of Chatsworth, I found on the hills and in the dales of Derbyshire ample occupation for the study of British plants, and added to my collection many not previously met with.

"Having a wish for experience in continental horticulture, I mentioned the subject to Sir Joseph Paxton, who readily consented to write to Professor Decaisne, then Director of the Jardin des Plantes, Paris, and some few months after, Sir Joseph received an intimation from the Professor that there was an opening, and that I could go at once to Paris. A few days after I was at the Jardin des Plantes with a letter of introduction from Sir Joseph to M. Neumann, the then Curator, who at once placed me under the direction of the late M. Houllett, whose courtesy and kindness is to this day gratefully remembered. At this establishment a large collection of plants was cultivated, both out-of-doors and under glass. I saw here for the first time Lapageria alba (then the only plant in Europe); I also saw Paulownia imperialis in flower for the first time. I was also very interested in the large collection of grasses grown here. Many facilities were given to young gardeners to attend lectures and to visit the large Peach and Nectarine growing establishments outside Paris, where, by the payment of one franc each, the *chef des cultures* gave them instructions in pruning, training, &c. I remained some months at the Jardin des Plantes, during which time I visited some of the best gardens and nurseries for miles round Paris. On returning to London I obtained employment in Messrs. Parker & Williams' nurseries at Holloway, and after six months in the plant department went as head gardener to Lieutenant-Colonel Perkins, Birtley Hall, Chester-le-Street, Durham, where I remained eight years, having charge of one of the finest collections of Orchids in the North of England, and a large collection of exotic Ferns, greenhouse and stove plants.

"On the retirement in December, 1867, of Mr. Catlin, curator of the Birmingham Botanical and Horticultural Society's garden, I was selected from about 200 candidates to succeed him. At this time the collection of plants was somewhat limited for a good botanical garden which had existed for thirty-seven years, and of trees and shrubs there were the remains of a fine collection, planted when the gardens were first made. For the formation of a large archery ground I received instructions from the committee of the garden to destroy one of the best, if not the best, collections of Crataegus and other Rosaceous trees and shrubs in the United Kingdom. The collection of plants was quickly increased. The glass accommodation was added to by the erection of two houses for the culture of plants, and subsequently the large, handsome conservatory was built. The absolute necessity for still further glass structures led to a special appeal for additional funds, and in a short time nearly £4000 were received. In July, 1885 a large portion of the old structure was pulled down, and an extensive block of new glass-houses built.

"We have now in the Botanic Gardens, Birmingham, a large collection of Orchids, a good collection of stove and greenhouse plants, including some fine specimens of Camellias, a large collection of Ferns, some good samples of Tree Ferns, and a good collection of herbaceous and alpine plants. A large rock garden was made and planted about six years ago, and is now a most interesting feature in the gardens throughout the year.

"In 1862 I raised Dicksonia Lathamiana, Moore, a hybrid between the St Helena D. arborescens and the Australian D. antarctica; the original plant is now a grand specimen. The late Mr. T. Moore, on examining specimens of this hybrid, told me he had not up to that time thought much of hybrid Ferns, but he now must change his opinion. I have since raised seedlings from this Fern. Another hybrid Tree Fern raised by me about 1870 is between the Mexican Cyathea insignis and the Norfolk Island Alsophila excelsa. I have not been able to raise this hybrid from spores. The original is now a splendid plant Gymnogramma Lathamiæ, Moore, is another hybrid raised by me some twenty years ago, and is between Gymnogramma decomposita and G. schizophylla. Cypripedium Lathamianum, a hybrid between C. Spicerianum and C. villosum; and Cypripedium Deedmanianum, a hybrid between C. Spicerianum and C. Chamberlainianum, were also raised by me."

## THOMAS MEEHAN.

THE career of Thomas Meehan is one to put before the young gardener as an incitement to work and study. By birth an Englishman, by profession a gardener, he has raised himself from a journeyman to be a leading municipal dignitary of a great city, the head of one of the most important nurseries in the United States, well known also in Europe for its collections of hardy trees; and what is of higher moment than mere business success is the fact that so important and so numerous have been his contributions to science that for thirty years he has held the position of Vice-President of the Academy of Natural Sciences in Philadelphia. His botanical work is marked by much originality and power of observation, but it is to be regretted that he has never been able to find time to crystallise and co-ordinate his numerous contributions into a consistent whole. He edited the *Gardeners' Monthly* for thirty years, was a leading contributor to at least six other journals, and still edits *Meehans' Monthly*, an illustrated journal of gardening and botany. As a practical man he is remembered as being one of the earliest to hybridise the Fuchsia, he having raised a cross between F. fulgens and F. longiflora, which received the name of St. Clair. He was the first to flower the Victoria regia in the United States.

Mr. Meehan, as we have said, takes a leading part in municipal matters in Philadelphia, of whose common council he is the father. It is to his exertions chiefly that the city has been provided with museums and public parks, the first of which was the garden of the American botanist, Bartram.

The following particulars have been gleaned from a communication to the Editor, with a few additions from Dr. Harshberger's book, mentioned later on; but we feel rather uncertain whether we may not be offending Mr. Meehan's retiring modesty by giving them publicity. The presentation of his portrait to the Academy of Natural Sciences has, however, served as the occasion for our American colleagues to bear testimony to the worth of Thomas Meehan, and we should not like to be left out of the general tribute, particularly as it enables us to make a few corrections in the record. A handsome silver loving-cup was also presented by a number of teachers to Mr. Thomas Meehan on the occasion of his seventy-fifth birthday.

"My main object in life," says Mr. Meehan, "has been to build up my great nursery. Science and literature have been side issues — almost wholly labours of love, with no thought of material compensation. Perhaps this is one great reason for my love of the editorial 'we,' with its inferred impersonality. At any rate, I have been adverse to public portraits and biographies. Until now, no picture has been taken, in spite of many importunities, since 1876, when one was taken as one of 'one hundred representative Philadelphians,' to place in a safe to be opened in 1976. As you have been one of my most valued friends, whom I have had to disappoint, this prelude seems proper, while sending you the enclosed from one of our city daily newspapers. As the agricultural papers are asking the *Record* for the use of their cut, I suppose it will now become public property, and perhaps be widely copied.

"While the portrait was being painted, friends in the Academy and others would engage me in conversation, and I find also members of my family. In this way I suppose the 'memoir' has been constructed. It is, on the whole, better than my good friend Dr. Harshberger got together in his *Lives of Philadelphia Botanists*, which is incorrect in some particulars. At the end of my father's apprenticeship in the garden of the Lord-Lieutenant of Ireland, he came at once to Watson's nursery at St. Albans. He was as early in life fond of botany and gardening as I was subsequently. I was head gardener, with one man under me, for Mr. Vaux, Paymaster to her Majesty's Forces, and secretary to the Ryde Horticultural Society, when I was but seventeen; and at eighteen I was gardener to Sir Augustus Clifford, Usher of the Black Rod, going to Kew in my nineteenth year." [Where his political opinions are said to have given offence to Sir William Hooker.]

In 1848, Mr. Meehan left Kew, and landed in the United States, and entered the establishment of Robert Buist. In 1852 he started the famous nursery at Germantown, but lost nearly everything during the War of the Secession.

"My mother was of the Denham family. When they married, both my father and my mother had considerable means, which they invested in the purchase of a fruiterer and provision business in Regent's Park — 'good-will' being a great consideration, when there was none to speak of. The business being unsuccessful, my father at once found a refuge in Oxley and Bunney's nursery, at Ball's Pond, Islington, from whence he was engaged as gardener to John Young, Esq., on his large estate at Westridge, in the Isle of Wight. He was never a week without an income, and the 'abject poverty' story probably arose from my having told my children in years gone by that my mother was my chief school teacher, and that the Book of Common Prayer, Bunyan's *Pilgrim's Progress*, Green's *Herbal*, and the Bible, were my only school-books, as being about the only books in the house—this not because of poverty, but in those days it was expensive to take much furniture from London to the Isle of Wight.

"In like manner my being 'deaf from infancy' requires qualification. That I have been slightly hard of hearing is true, but one who has hundreds of times presided at political, scientific, and other meetings, engaged in discussions, and acted as reporter for newspapers and magazines, can hardly be classed with the unqualified 'deaf.' I am close to my seventy fifth birthday, but can still

take my place in the deliberative assembly, the Philadelphia Municipal Council, to which I have again been re elected from April 1 for another two-year term, the first having been in the session of 1882–3 But I must not complain. If I cannot take time to write what my friends want, I should be satisfied to accept the chances. *Thomas Meehan.*"

## NEW OR NOTEWORTHY PLANTS.

### BERBERIS CONGESTIFLORA, VAR. HAKEOIDES.*

THIS is a very striking hardy shrub, with long slender leaf-stalks, roundish leaves, edged with slender spines. The numerous yellow flowers are arranged in stalked globular heads springing from the axils of the leaves. The cultivated plant, as shown by Messrs. J. Veitch & Sons, on April 23, differs from the plant figured by Gay, in that the stalks supporting the inflorescences are shorter and more crowded. It represents, in fact, the variety hakeoides described by Sir Joseph Hooker in the *Botanical Magazine*, t. 6770 (see fig. 111, p. 295).

* *Berberis congestiflora*, Gay, *Hist. Fisic. y Polit. de Chile*, i. (1845), p. 75, t. 3. :—"B. spinis foliaceis latissimis bilobis pluridentatis sub-amplexicaulibus demissis ; foliis petiolatis aut subsessilibus, rotundatis emarginatis spinoso-dentatis quandoque mucronatis plus minusve dentatis aut integris ; floribus armeniaceis in corymbum densiusculum approximatis folio longioribus." Prov. of Valdivia. Fl. in September.

## ORCHID NOTES AND GLEANINGS.

### ODONTOGLOSSUM × WILCKEANUM SIBYL.

WE have in this variety one of the darkest coloured and most heavily blotched flowers that I have seen, and broader in its segments than almost any other. The sepals are of a cream-white tint, but with the greater part of their surface coloured, in two or three sections of a dark purplish-red, the sections being marked off by thin irregular cream-white bars, the apex and very narrow margin being also white. Petals cream-white, showily marked with several large, and some small purplish-red coloured blotches, and the whole surrounded by a border of irregular small spots of a purple tint inside the narrow fringed cream-white margin ; the apical portion of about ½ inch being also white. Lip with light orange coloured crest, with one large red-brown spot in the front, the fringed blade being of primrose colour. It flowered with the possessor of so many handsome spotted Odontoglossums, Norman C. Cookson, Esq., Oakwood, Wylam, Northumberland (gr., Mr. Wm. Murray) *J. O'B.*

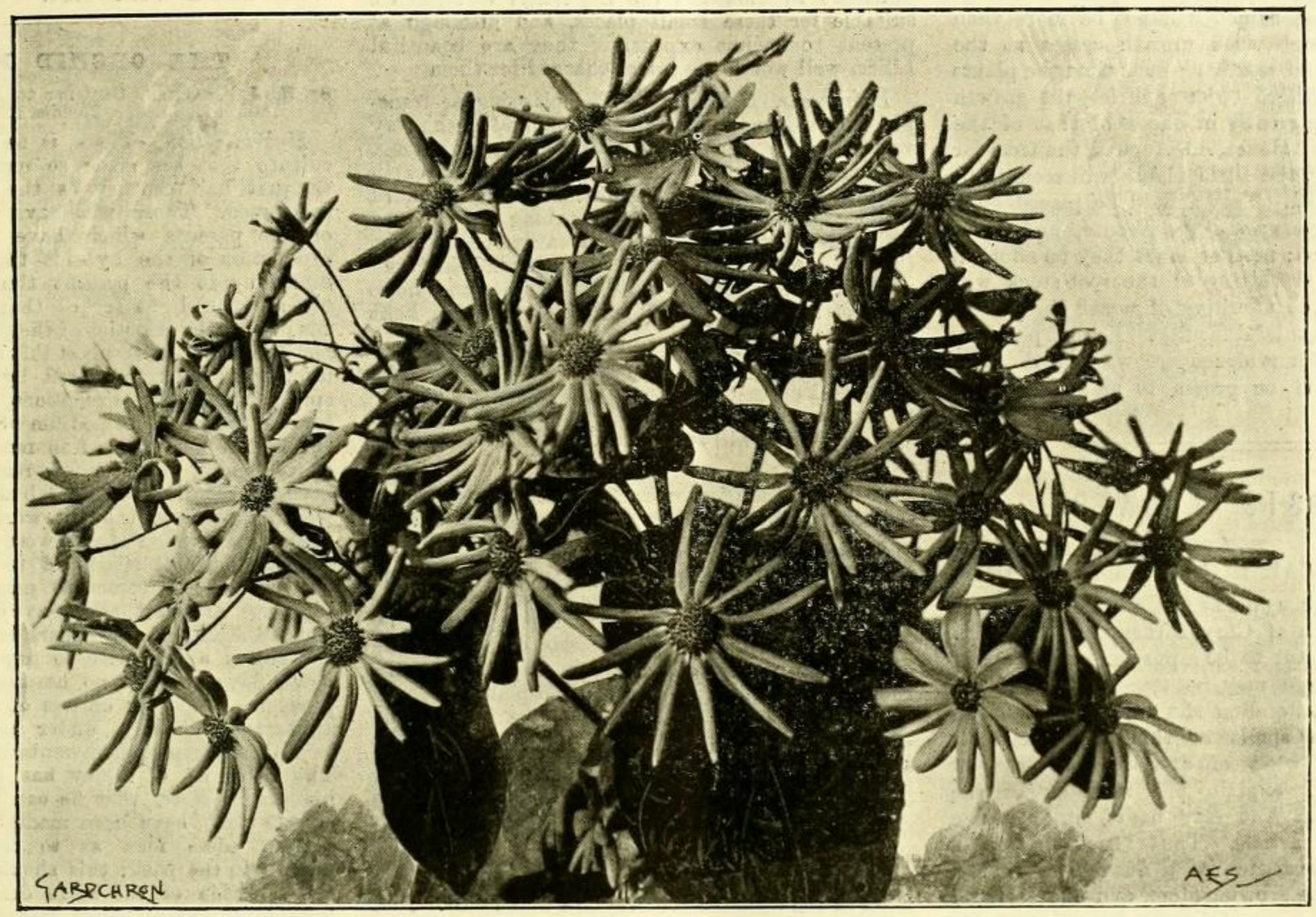


FIG. 112.—A CINERARIA WITH ROLLED FLORETS.

(See "Cactus Cinerarias," on p. 301.)

### PHALÆNOPSIS AMABILIS (*Blume*) VAR. RUNESTADIANA.

A noble flower of that species of Moth-Orchid known in gardens as Phalænopsis grandiflora, has been sent by M. Lucien Linden, of l'Horticole Internationale, as an example of the fine quality of the flowers of their recent importation. The fine flower presents a perfect circle 4½ inches across, nearly filled in by the fine white segments, whose surface glistens with a silvery lustre. Each petal is 2½ inches wide, the upper margins almost touching the edges of the broad ovate upper sepal. The erect front of the side lobes, basal auricles of the front lobe, and the curved tendrils of the lip are of bright yellow tint, and the crest and bases of the side lobes are spotted with red. The exterior of the flower is slightly tinged with rose colour, which imparts a delicate pearly hue to the front surface. It is a splendid type, and now that cultivators manage their Phalænopsis better than formerly, it should get well represented in gardens. It is not a variety of the plant figured in *Lindenia II.*, which is Phalænopsis Aphrodite, Reich. f. *J. O'B.*

## CULTURAL MEMORANDA.

### CALCEOLARIA AMPLEXICAULIS.

THIS species of Calceolaria was once largely grown for bedding purposes, but not always with the best effect. Happily the public taste in bedding out has changed, a tasteful blending of colours is preferred to violent contrasts, and the colours of the flowers are less garish. The idea is to plant taller subjects generally, and this Calceolaria certainly ranks among the best for the purpose. It attains a height of 3 feet when planted in loamy soil, and flowers abundantly. Cuttings made of the young shoots strike readily in September, and may be placed to the number of six in a 60-pot, using a rich sandy loamy soil for filling the pots. The pots are placed in a cold frame, and the cuttings prevented from flagging by sprinkling them twice or thrice a day, and keeping the frame closed and shaded. When roots form, air is admitted for an hour or two at the first, and it is gradually increased to full exposure in mild weather. A shelf in a greenhouse is a suitable place for them in the winter. Early in the year they are potted singly into 3-inch pots, and grown freely in a pit from which frost is excluded. The leading shoots should be supported by stakes. The plant does not like much water until well established, but when planted in the beds, water must be copiously applied in hot weather. *H. T. Martin, Stoneleigh.*

### LISIANTHUS RUSSELLIANUS.

This species was once popular among the old school of gardeners, who took a delight in the cultivation of difficult plants ; for the subject of this note ranks among those which require more than ordinary skill in the cultivator. The plant is a biennial requiring intermediate-house treatment, and is usually raised from seed sown in the month

Oxford Dictionary of National Biography

**Menzies, Archibald** (1754–1842), *naval surgeon and botanical collector*
by Elizabeth Baigent
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**Menzies, Archibald** (1754–1842), naval surgeon and botanical collector, was born at the house of Styx or Stix, near Aberfeldy, Perthshire, on 15 March 1754, the son of James and Ann Menzies. He had three brothers and four sisters, and was educated at the parish school at Weims. His elder brother, William, was employed in the Royal Botanic Garden, Edinburgh, and Archibald too became a gardener. John Hope, then professor of botany, enabled him to train as a surgeon at the University of Edinburgh and Menzies took his degree in 1781. After making a botanical tour through the highlands and Hebrides in 1778, he became assistant to a surgeon at Caernarfon. He subsequently entered the navy as assistant surgeon on board the *Nonsuch*, under Captain Truscott, and was present at Rodney's victory over the Comte de Grasse on 12 April 1782. On the declaration of peace he was sent to the Halifax station, where he corresponded with Sir Joseph Banks and sent him seeds, and in 1786 he was engaged as surgeon on board the *Prince of Wales*, under Lieutenant Colnett, on a fur-trading voyage of discovery to the north-west coast of America. They visited Staten Island, the Sandwich Islands, and China, returning direct from the latter in 1789.

In 1790 Menzies was elected fellow of the Linnean Society, in whose *Transactions* for 1791 and 1798 he published accounts of his natural historical findings. In the same year he was chosen as naturalist and surgeon on the *Discovery*, under Captain George Vancouver. The party was to explore and chart the coasts of north-west America. They visited the Cape, King George's Sound, New Zealand, Tahiti, and the Sandwich and Galápagos islands, as well as north-west America. Vancouver praised his services in the preface to his account of the voyage; only one man died from ill health on the expedition, which returned in October 1795.

Menzies made the first recorded ascent by a European of Wha-ra-rai and Mauna Loa, an active volcano over 13,000 feet in height, in Hawaii (Sandwich Islands); he determined their altitude by the barometer, and collected specimens in all the countries visited, especially at Valparaíso and at Nootka Sound. He brought back a great variety of plants, including *Ribes speciosum*, *Araucaria imbricata*, and *Abies menziesii*, and numerous cryptogams, besides other natural history objects. The plants were transported in a glazed frame which foreshadowed the Wardian case, though many died after a disagreement between Menzies and Vancouver as to their handling. The new species of plants were described by Sir J. E. Smith, Robert Brown, and Sir W. J. Hooker, and Menzies himself gave an account of the voyage in the first and second volumes of John Loudon's *Magazine of Natural History*. Menzies' Olympic peninsula journal was published in 1992, and his Alaska journal was published in 1993. His Hawaii or Sandwich Island journals recording three separate visits to the islands were published in 1920. The long delays were due to his having given his five-volume journal to Banks rather than publish it himself.

Menzies was made honorary MD of Aberdeen University in 1799 and in the same year he joined the *Sanspareil* in the West Indies, under Lord Hugh Seymour. Soon

after his return he retired from the navy, and he practised for some time in London, living in Chapel Place, Cavendish Square. He had married late in life and had no children. His wife died in 1836. From 1826 he lived at 2 Ladbroke Terrace, Notting Hill, where he died on 15 February 1842; he was buried at Kensal Green cemetery beside his wife. His herbarium of grasses, sedges, and cryptogams was bequeathed to the Royal Botanic Garden, Edinburgh; in 1886 other specimens were acquired by the British Museum.

Menzies is commemorated in the names of several of the plants he collected, though some have subsequently been renamed. Although skilled in botanical collection, description, and illustration, he never achieved eminence, because he relied on others to make his work public.

ELIZABETH BAIGENT

**Sources** *GM*, 2nd ser., 17 (1842), 668–9 · J. M. Naish, *The interwoven lives of George Vancouver, Archibald Menzies, Joseph Whidbey and Peter Puget* (1996) · J. J. Keevil, 'Archibald Menzies, 1754–1842', *Bulletin of the History of Medicine*, 22 (1948), 796–811 · J. Grinnell, 'Archibald Menzies, first collector of California birds', *The Condor*, 34 (1932), 243–52 · E. W. Groves, *Archibald Menzies* (1992) · W. K. Lamb, *Banks and Menzies* (1992) · F. R. S. Balfour, 'Archibald Menzies, 1754–1842: botanist, zoologist, medico and explorer', *Proceedings of the Linnean Society of London*, 156th session (1943–4), 170–83; pubd separately (1945)

**Archives** BL, journal of voyage in the *Discovery*, Add. MS 32641 · British Columbia Archives and Records Service, Victoria, corresp. and papers · Linn. Soc., journal [copy] · NL Aus., journal [copy] · U. Edin., New College, journal relating to Sandwich Islands · University of Washington, papers | Linn. Soc., letters to Sir James Smith · NHM, zoological notes made during Captain Vancouver's voyage to the Pacific Ocean · RBG Kew, corresp. with Sir Joseph Banks

**Likenesses** lithograph, 1835 (after E. U. Eddis), Wellcome L. · E. U. Eddis, oils, 1836, Linn. Soc. · Miss Turner, lithograph (after E. U. Eddis), BM, NPG

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Elizabeth Baigent, 'Menzies, Archibald (1754–1842)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Oct 2009 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/18564, accessed 28 Nov 2014]

Archibald Menzies (1754–1842): doi:10.1093/ref:odnb/18564

## Robert Menzies.

On M'Coig's death Robert Menzies was appointed his successor. Of him we can tell little. He was probably a native of Weem in Perthshire, and was elder brother of Archibald Menzies, a distinguished botanist and traveller, who, as a young man, was also employed in the Botanic Garden, and apparently under his brother.[1] The Pipe Roll for the later years of the eighteenth century is missing from the series, and therefore I am not able to determine the exact date of the death of Menzies, but from a statement by Dr. Neill[2] we know that his successor in the Garden was appointed in February 1800.

## John Mackay.

The successor of Robert Menzies was John Mackay, brother of James Townsend Mackay, the distinguished botanist whose name will always be associated with the investigation of the flora of Ireland. John Mackay's name is familiar to British botanists, for it occurs frequently in the pages of British floras, but we depend for our knowledge of the incidents of his career upon the following memoir, from the pen of Dr. Neill, which appeared in the "Scots Magazine" for 1804:—

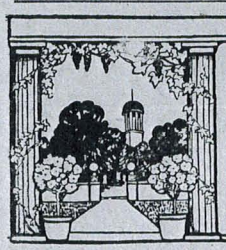
SHORT BIOGRAPHICAL MEMOIR OF THE LATE MR. JOHN MACKAY, SUPERINTENDENT OF THE ROYAL BOTANIC GARDEN AT EDINBURGH.

Almost two years have elapsed since the death of this exeellent young botanist; and hitherto no account (as far as I have observed) has been given to the public, of his professional excellence, the progress he had made in botany, and the services he rendered to that science, or of the many amiable qualities of his personal character.

The writer of the following short memoir is conscious of his inability to do justice to the subject. But however imperfect his

[1] The biographical notices of Archibald Menzies in Proc. Linn. Soc., vol. i. (1849), p. 139, and in the D. N. B., give in error "William" as the name of this brother who was Principal Gardener of the Royal Botanic Garden.

[2] See below in the memoir of John Mackay.



# THE GARDENS AT WOOLVERSTONE PARK, IPSWICH.

**Interview with Mr. W. Messenger.**

THE Orwell at high tide is a glorious river, and on the occasion of my visit during a showery March day to Woolverstone Gardens, it contributed, in no small degree, to the beauty of the prospect. Situated five miles from Ipswich, the seat of Mr. C. H. Berners is in the midst of the most delightful of Suffolk scenery; while as to the gardens, which have always been attractive, extensions and changes in recent years have rendered them a perpetual source of interest. Mr. W. Messenger, the gardener, under whose auspices the improvements have been carried out, showed me round, and took every pains to afford me information, the only difficulty being that the time was not long enough to enable me to see all there is to be seen. Starting in the vicinity of the Hall, built of white, hard brick, to which nothing save Ivy and Ampelopsis Veitchii will cling, we made our way into the Fernery. This is very picturesque, and as Mr. Messenger mentioned, is always kept green.

"A Fernery," he said, "I consider one of the finest forms of gardening work, and I am sure it is more effective and more restful to the eye when it is free from flowers of different hues. Amongst the numerous Ferns which flourish here are Adiantums and the Tree section. Palms, Phormium tenax, and Begonia Rex are also at home. The Fernery, which is lighted with electric light, looks as well illuminated by artificial means as by daylight. The rockwork which forms a passage leading to the conservatory, and the Fernery itself, were designed by Messrs. Pulham."

**Climbers for the Conservatory.**

"Speaking of light, the conservatory is remarkable for its bright appearance."

"We try to get the maximum of sunshine. Owing to its length, the building scarcely looks as large as it is, but it requires an immense amount of furnishing. We use towards this purpose a number of jardinieres filled with different plants, according to the season."

"Surely one of your features must be the number of climbers?"

"Yes, that is a feature which we cultivate. The climbers include Asparagus plumosus, Cobæa scandens variegata, Habrothamnus elegans, Jasminum grandiflorum, Plumbago capensis, and P. capensis alba, Rhyncospermum jasminoides, Solanum jasminoides, Tacsonia Von Volxemii and exoniensis, Tecoma jasminoides, Streptosolen Jamesonii, Swainsonia galegifolia alba, Bougainvillea Sanderii, Lonicera sempervirens, and Begonia Corallina on pillars. The Honeysuckle flowers all the year round, the blooms being small but very pretty. It is useful for table decoration, and lasts two or three days in water. I am surprised that Begonia Corallina is not more generally grown. It is very graceful, and has a long flowering season. Just now the flowers most in evidence are Primula obconica, a strain I have grown for some years, Eupatorias, Schizanthus, Cineraria Matador—which is quite a departure from the old type, and is a lovely shade of colour—Cineraria stellata, and Fuchsias."

"The terrace bedding is on an extensive scale."

"You mean the old Italian garden. This, until 1896, was all the pleasure grounds in front of the Hall. You will see how greatly they have been augmented."

"I should like to have details of the bedding for spring and summer."

"In spring we mass Tulips and Arabis, Myosotis and Tulips, Myosotis and Narcissi, Arabis and Narcissi, Polyanthus mixed (crimson and yellow), and Wallflowers in three colours—red, golden, and lemon. In some of the big beds there are as many as six or seven hundred plants of one variety of Wallflower. The scroll in the centre round the basin, fountain, and figure of Diana, takes eight hundred Wallflowers to fill it. In the vases which we put out in the summer are Ivy-leaved Geraniums."

MR. W. MESSENGER.

"Do you use Geraniums for summer bedding?"

"Very largely, especially Paul Crampel and John Gibbons. One of the combinations in summer is the Ivy-leaved Geranium Madame Crousse and Ageratums, of which I have a fine type, of compact habit and deeper colour than the ordinary variety so much grown elsewhere. Begonias contribute largely to the show. No dot plants are introduced, and we select the dwarfer rather than the taller-flowering plants, so that the view may not be affected."

**The American Garden.**

"Beyond the Italian is the American garden," continued Mr. Messenger, "with a centre bed of Rhododendrons Blandyanum, while beds surrounding are filled with Azaleas mollis and Ghent, and Andromeda floribunda and Catesbæi. The border was planted with herbaceous varieties, which formerly consisted of American plants. The reason why we use Blandyanum is that it does not, like many Rhododendrons, grow high. The other varieties in beds on the lawn, all of one variety, include Michael Waterer, John Walter, The Queen, John Waterer, Everestianum (very fine), Charles Dickens, Mrs. Holford, and John Spencer. No peat is introduced in the soil for Rhododendrons, only a little leaf-mould."

"What varieties of Roses do you find ar best for covering the logs so effectively?"

"Four varieties of Wichurianas, na Dorothy Perkins, Jersey Beauty, Alberic bier, and Wichuriana alba, the last one o prettiest, which is also in bloom after the o have ceased flowering. Just at this p Hydrangea paniculata is grown in front o Laurels for colour effect; and a belt of Rh dendrons of the ponticum type, but finer of better colour, is conspicuous. Hollies, v do well here, supply some excellent spec trees."

"Then, there is the bedding near your s did group of Elms."

"The six ancient Elms are one of the s of Woolverstone. The beds, eight in nur with sundial in the centre, are usually with one kind and colour of bedding pl occasionally varied and broken up with plants. The colour scheme is different season, and practically all sorts of bedding used at different periods. Last year I Abutilon Savitzii as a dot plant, with a gro work of Ageratum Prince Louis Victor. D intermediate, and tall Antirrhinums favourites, and so are Begonias Lafayette Count Zeppelin. Other fibrous and tube rooted varieties are used. You might Zonal and Ivy-leaved Geraniums, Fuch Heliotropes, Salvia Glory of Zurich, Ca larias, Marguerites, Iresines, and Tagetes.

**The Lower Terrace.**

From this point the pleasure grounds s right down to the waterside, and Conifers flowering shrubs of great beauty have planted judiciously. Along the top of lower terrace, Rosa rugosa yields a vast exp of flower.

"But it took four years to get them to pe tion," said Mr. Messenger, "which is not, haps, surprising, as all the expanse of and bedding beyond the Italian garden ha be made for its present purpose. We cle a field of four and a half acres to extend lawns. On one of the walls Tropæo speciosum runs along, and supplies a glo mass of colour, though I have tried it wit success elsewhere."

"When was the pergola of Roses, leadin the river, put up?"

"Four years ago. The Roses on it are sev varieties of Wichurianas, Hybrid Teas, Po thas, and Noisettes. The Garland Rose is effective at the top entrance. The walls of terraces are covered with such climbers Escallonia macrantha, Ceanothus Gloire Versailles, Viburnum plicatum, Jasminum variety, the late Loniceras, and Vitis in vari Among flowering shrubs, Ribes cerasus, Ma Forsythia, Berberis, and Lilacs seem to find soil congenial. To the right here we h naturalised largely several varieties of the types of Narcissi, and close to the rustic bri are batches of Iris Kæmpferi. Here, too, B boos, Spiræas, and Wichuriana Roses, grow on a steep bank, make a striking backgrou while noble specimens of the Oak and Be tower above them. I have recently plante bed with Cupressus lutea, dotted with Pru Spinosa purpurea and Prunus Pissardi, wh should make a good effect."

"You must not omit to give me a few det of some of the Rose beds on the higher of the lawn?"

"Caroline Testout always does well, and used in many ways. Last year the standa were flowering in November. We have th or four beds planted with the same variety, the same number also of General Macarthur Madame Hoste, with mixed Teas in a large ce bed. There are three beds of Hybrid Perpetu planted out with a view to harmony in colo with five or six varieties in each bed. One of Hybrid Perpetuals commences with a v light shade, going by degrees to a very d one. There are also beds mixed of good varieties, such as Dupuy Jamain, and Gen Jacqueminot."

**The Cliff Garden.**

We next explored the most picturesque portion of Woolverstone, the Cliff garden, which on one side slopes down to the edge of the river. Its position is north to north-east, its elevation one hundred and twenty feet, it is about three-quarters of a mile in length, and the width varies from forty to eighty yards. The soil in the lower level is stiff loam, changing by degrees to sandy loam in the higher level. All along the walk there are pleasing vistas, but it is difficult to do justice in print to the beauty of the garden, which culminates with the outlook from a quaint wigwam erected forty years ago. But from the horticultural point of view, the extraordinary wealth of shrubs, Conifers, and plants constitute its most potent charm.

When we had finished our exploration of the Cliff garden, I made the acquaintance of yet another feature, the Dairy garden. That is to say, the model dairy and cottages attached stand in the centre of an irregular circle of lawn, with border varying in width from five to twelve feet. It is occupied with Roses and herbaceous plants, but a considerable number of annuals are sown to fill vacant spaces and give a bright effect. Near the dairy garden is Mr. Messenger's pretty house, with a splendid collection of ponticum Rhododendrons facing at the end of the lawn. The kitchen garden and fruit ranges are adjacent. Entering the former, I noticed immediately a remarkable herbaceous border, with an old sundial in the centre of the grass walk.

**Asters and Sweet Peas.**

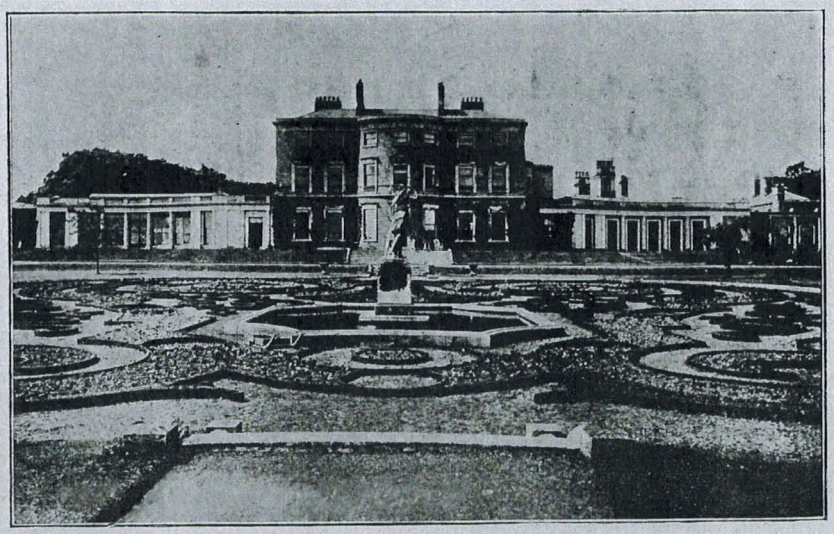
"The length of the borders," said Mr. Messenger, "is one hundred and twenty yards, and it is six feet wide. Roses and Honeysuckles are trained on iron rods as a background. In the border itself there are no particular favourites, but the varieties of flowers are chosen in order to give a good display from March to November. Annuals are used freely to form a mass of bloom during the summer. As to other flowers outside, there is a big bed of Asters. The Border Carnations, which also have a quarter to themselves, are principally seedlings, one scarlet being especially bright. Last year we had as many as thirty flowers open at one time on one plant."

"When do you sow your Sweet Peas?"

"In October. Leafmould is placed in the drills and the seed sown. There are upwards of forty varieties, a few of the best being Etta Dyke, Frank Dolby, Mrs. H. Bell, Thomas Stevenson, Maud Holmes, and Nubian. I choose the varieties for the sake of colour, and they run from white to maroon, with shades of lavender, orange, scarlet, and pink."

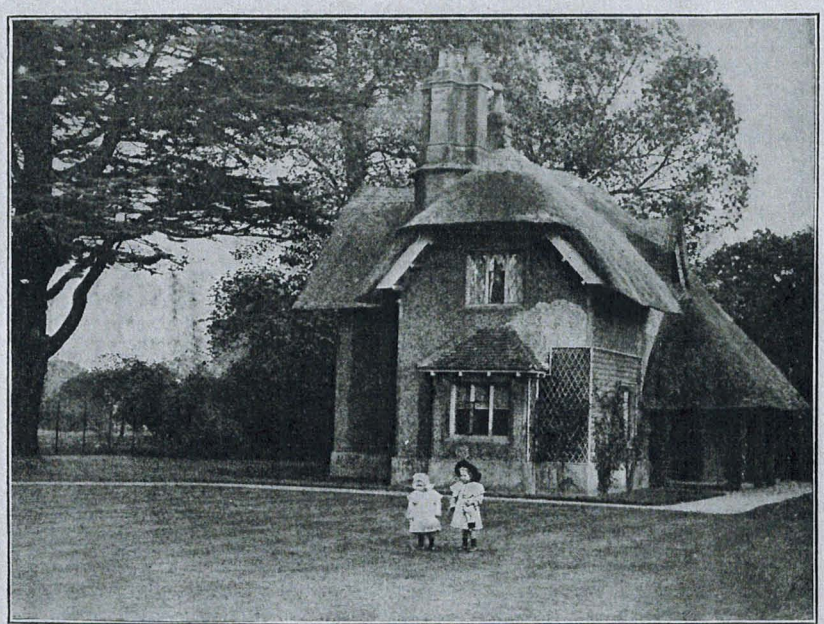
"What are the features of the glasshouses?"

"The chief feature is the long, span-roofed house, divided into three divisions. The first division is occupied by Fig trees They are trained to wires, eighteen inches from the glass. In the second division are Peaches and Nectarines, to form a succession to the early house.



CARPET BEDDING AT WOOLVERSTONE PARK.

The varieties are Dymond, Thomas Rivers, and Crimson Galande Peaches, Humboldt, River's Orange, and Stanwick Elruge Nectarines. The third division is a mid-season Vinery, and contains Hamburghs, Foster's Seedling, and Madresfield Court on the east side; Alicante, Appley Towers, Buckland Sweetwater, White Tokay, and Lady Hutt on the west side. The



THE GARDENER'S HOUSE AT WOOLVERSTONE PARK.

plants in these houses include Spiræas japonica and astilboides, and large plants of Spiræa confusa, Marguerites, Deutzias, and Tulips, for church decorations. We plant six hundred Chrysanthemums out, and grow between one thousand one hundred and one thousand two hundred. The varieties are fairly up-to-date, and are selected principally for colour and lasting properties. They are extensively used in large vases in conjunction with autumn foliage, as long as it is obtainable. Singles are favourite flowers for smaller vases, and are grown in quantity."

"Do you get more than one crop of Melons in the year?"

"Yes, two. I have two seedlings of my own, one white and the other scarlet flesh. I crossed Hero of Lockinge and Sutton's A1. The other varieties grown are Queen of the West and Taunton Hero. In the Fernery are two fine old specimens of Bouganvillea glabra and speciosa. They date back nearly fifty years, and while speciosa flowers luxuriously in the spring, glabra yields a wealth of flower in the autumn. In the early Vinery, Buckland's Sweetwater and Black Hamburgh are the varieties, and in the second division, Black Hamburgh, Madresfield Court, and Foster's Seedling. All the Vineries have outside borders, and in two we grow Asparagus plumosus on the walls, which we cut daily all the year round."

**Hardy Fruit.**

"With regard to hardy fruit, you must have a large quantity on your walls."

"The Apricots are Hemskerk, Large Early Montgamet, Shipley's, and Gros Peche; the Nectarines Early Rivers, Dryden, Humboldt, Lord Napier, Pineapple, Rivers' Orange, Pitmaston Orange, and Spenser. The best of the Peaches are Amsden June, Waterloo, Hale's Early, Rivers' Early York, Early Grosse Mignonne, Duchess of Cornwall, Peregrine, Crimson Galande, Stirling Castle, Dymond, Bellegarde, Barrington, Sea Eagle, Princess of Wales, Prince of Wales, and Gladstone. The pick of the Pears are Beurre Bosc, Beurre Hardy, Beurre Superfin, Williams' Bon Chretien, Doyenne du Comice, Durondeau, Emile d'Heyst, Glou Morceau, Josephine de Malines, Louise Bonne of Jersey, Marie Louise, and Souvenir du Congres. The Plums are President, Coe's Golden Drop, Kirke's Blue, Golden Transparent Greengages, Jefferson, Reine Claude de Bavary, Transparent Gages (early, original, and late varieties), Monarch, and Wyedale."

"What about bush fruit?"

"I have been trying an experiment with Black Currants. Having suffered a great deal from the insect pest, I used quassia, syringed the trees five times at intervals of a fortnight, and had a fine crop. Gooseberries are grown in a cage and on cordons. Warrington is the variety grown as cordons. The Strawberries which suit us best are Royal Sovereign, Reward, Pineapple, President, Givon's Late Prolific, Laxton's Latest, and Waterloo. There remains the slip garden."

"This appears to be entirely devoted to fruit."

"It was laid out for that purpose. On the walls are Cherries, dessert and Morello; Plums and a number of Pears, and dessert Apples. The houses in the Slip garden are a lean-to Vinery (the latest), a Strawberry house, which is later filled with Tomatoes, a Carnation house, and a hardwooded house, principally devoted to Azaleas and Himalayan Rhododendrons."

**Mr. Messenger's Career.**

"Where did you begin your gardening career, Mr. Messenger?"

"At Sprotborough Hall gardens, near Doncaster, at that time famous for its Conifers and its excellent collection of Pines. At the end of two years I passed on to Birdsall gardens, where I served for three years, moving on to Hutton Hall. At the end of a few months I was promoted to be foreman, and remained in that position for upwards of eight years. Mr. McIndoe, the head gardener, was a most successful fruit-grower, and was well-known at the leading horticultural exhibitions throughout the country. In 1893 I came here as head gardener, succeeding the late Mr. Shepherd, and during my period of office twelve acres have been added to the pleasure grounds, and one and a half acres to the kitchen garden. For several years Chrysanthemums were exhibited at the leading shows with much success. Fruit-growing is one of our strong features, and I have secured a long array of prizes at the various shows, including the Royal Horticultural Show in October, Woodbridge, Ipswich, Colchester, and Bury St. Edmunds. As a delegate from the Ipswich Gardeners' Association, I have lectured at Norwich, Chelmsford, Colchester, and at frequent intervals before the members of the Ipswich Horticultural Society, on subjects ranging from house table decoration to vegetable growing. We had no time to look round the vegetables, but they are, of course, a considerable feature here, and are grown in large quantities, from Potatoes and Peas to Lettuces and Radishes. But these, with the frame grounds, you must please take for granted."

ALFRED WILCOX.

NEXT week, the gardens at Batsford, Moreton-in-Marsh, will be described.

## FRUIT CULTURE FOR AMATEURS.

### MULBERRIES, MEDLARS, NUTS AND FILBERTS.

THE Mulberry may be raised from seeds sown in February, by the insertion of cuttings in the autumn, and by layers in February. The two last-named methods are the best. I will only briefly refer to layering here. Young branches are partially "ringed," a portion of the bark being removed from that part of the stem which is buried, or a small slit may be made instead. The stem is buried in a sandy compost, and kept in position by the insertion of two long pegs. If the soil be maintained in a moist state throughout the summer, roots will be plentiful in the autumn, when the rooted layers should be planted by themselves, and made secure to stakes, so that the stems may grow straight.

Young trees should be planted to form bushes, then they can be covered with nets to keep the birds away when the fruit is ripe.

A good, friable loam suits the Mulberry best, and the position must be a rather dry one, though I have grown trees forty feet high planted on a steep bank near a pond, wherein the roots rambled in mud. The majority of the roots, were, however, in rather dry soil. When planting do not add any manure to the soil, not even where it is poor, but surface-mulch with rotted manure and some good loam mixed. The Black Mulberry is the one to grow.

**Medlars.**

One medium-sized Medlar tree is capable of yielding sufficient fruit to supply the needs of an average family. The treatment, as regards soil, situation, and pruning, that is suitable for Pears will do also in the case of Medlars. Medlars may be grown very successfully in shrubberies, where sufficient space is allowed. Trees are raised from seeds, by layers, and by grafting and budding on the White Thorn or Pear, the latter being the best stock.

**Nuts and Filberts.**

These are propagated by layers, cuttings, grafting, and seed. Suitable stocks are the common Hazel and the Spanish; the latter is almost, if not quite, free from suckers. The best compost is that formed of loam and leaf-soil on a dry base.

Before planting, the cultivator should very closely examine the base of the stem, just above the junction with the roots, and with the aid of a sharp-pointed knife, remove any tiny "eyes" found there, as, if left, they would grow and form suckers. It may be convenient, in some gardens, to grow bushes, and in others standards or half-standards. All stem shoots must be removed.

During the flowering period there may be very few male catkins. When at the stage of bursting, the pollen of the male catkins must be collected and dusted over the female blossoms. This operation, if well carried out, will mean a good crop of nuts; neglect will be followed by failure. In summer time the twigs should be cut out and not allowed to cause overcrowding in the centre of the tree.

Of Medlars, Nottingham and Royal are the best. Nuts: Cosford Club, Kentish Cob, and Merveille de Bollwiller. Filberts: Close-headed Prolific, Purple-leaved, and Red-skinned Exhibition.

G. G.

## SEASONABLE POTATO ITEMS.

BY the time this note appears the bulk of Potatoes will have been planted, but it is a mistake to suppose that because the recognised planting season is over it will be useless to make further planting with any prospect of getting a profitable return. As a matter of fact, Potatoes may be planted any time up till the middle of June, and in a favourable season this late planting not infrequently provides the most acceptable dishes of young Potatoes, which are ready for lifting just when the skins of those planted in March and early April have become red, and nothing short of peeling with a sharp knife answers when preparing the tubers for table.

**Guard Against Late Frosts.**

Keep a sharp look out for the appearance of the tops of those planted a few weeks ago, Jack Frost having a nasty habit of putting in an appearance about now, and unless the tops are guarded against attack, either by means of a little hay, straw, soil, or paper, the grower's hopes of an early crop may never be realised.

Most growers like to keep their stocks perfectly true, this being of great importance when exhibition is the object in growing. This is not always possible when the tubers are grown on land planted with a different variety of Potatoes the previous year. Even those who have paid a fair price for new stock, often realise there are rogues present, before the tops are half grown. But there is no necessity to dig these up at once. A more profitable plan will be to make them pay for the ground occupied. This is best done by placing a stick against each, selecting all those marked for early digging.

Remember, huge, strong-growing tops do not always indicate a heavy crop of tubers beneath; on the contrary, we often find that a root with haulm several feet long, and stems as thick as clothes props, does not yield half a dozen tubers of fair size. On the other hand, varieties making but little top growth often furnish a welcome surprise in the matter of the number of tubers found to each root.

**Thinning the Haulm.**

The practice of thinning out the haulm is not so freely resorted to as it should be, sometimes as many as half a dozen strong shoots being allowed to remain for a small seed set to support. A moment's reflection should convince the grower that to allow these to remain will not be an advantage. We usually find our finest Potatoes, and heaviest crop, from roots supporting not more than a couple of shoots, and where this number is exceeded, the grower is advised to exercise the necessary care in reducing them. To do so requires no great skill, although I should be sorry to entrust the work to those who had no interest in the crop.

It is a great mistake to use artificial manures too freely, especially among Potatoes growing on land which was well prepared last winter. This applies with special force if the seed has been imported from Ireland or Scotland. Experience teaches me that seed purchased from either of these places usually gives good results without any surface feeding at all. I have frequently come across amateurs who, not content with the strong growth such seed invariably makes, and thinking to improve matters, use artificial fertilisers in excessive quantities, the result being wonderful dark foliage and extraordinary rank growth, but a crop of Potatoes leaving much to be desired. Last season I fell across a man, who, having bought Scotch seed, and plenty of these manures, declared it was his intention to provide the neighbours with a few eye-openers, but the too frequent use of the manure ruined the crop. He now speaks of the variety, not as an eye-opener, but a mouth-closer, whereas it was not the Potato, but the mistaken kindness of the grower which accounted for the light crop.

A couple of dressings of good soot, one in May, and the next a few weeks later, invariably results in a fair sack or more to the perch. I have every confidence in recommending it to others.

F. R. CASTLE.

## SALADS.

THE salad bowl is a serious consideration during the hot summer months, justifying the setting apart of a portion of the garden for the special cultivation of salad plants. These are numerous enough, but many useful things that would impart a refreshing flavour or piquancy to salads are often left out. There are many ways, too, of utilising, for the purposes of salads, material that would otherwise be wasted.

In most gardens, for instance, Lettuces and Radishes will run to seed, and when this occurs the gardener pulls the offending roots up, and destroys them. But these can be put to good use. Let the seed form and ripen, and in the same and the following years it can be utilised by being sown on a piece of rich ground. When of fair size, the young, immature Lettuce plants may be pulled, and will prove of greater service in salads than their older, tougher brethren. The young leaves of the Radishes, too, are very wholesome, and will be found excellent if gathered before the usual roughness makes itself apparent. Young Onions can be grown in the same manner, and used when very small; they are then very tender and sweet. These three subjects have the advantages of requiring no particular cultivation; being sown thickly, they take up little room; and any surplus or home-grown seed used.

**A Substitute for Watercress.**

Those who do not like the hot properties of Watercress, when grown out of water, will find something more to their taste in the Upland Cress, which has leaves similar to Watercress.

the cuttings be taken out and examined while the callus is forming, but the rooting process is actually hastened by wounding the callus—by paring off some of the outside. This stimulates the flow of sap to the wound, and causes more rapid growth—"almost immediate root-development," says Professor Balfour. And he adds: "If a first paring is ineffectual (in different subjects), a second or a third may bring about the desired growth." The same principle may be applied to wounds on trees. If they are left to themselves, the callus will in time form a protective covering; but the time may be very long. It can be much shortened by paring off the outside of the callus.

### "BIG FLEAS HAVE LITTLE FLEAS."

June 10th.—It is impossible to deny that there is an unpleasant side to gardening. Nobody can like going about killing things, yet unless it is done many of our crops would be destroyed. I put birds out of the question. There certainly are some gardeners who seem to derive a satisfaction from wringing the necks of the thrushes which they find inside their Strawberry nets, but they are the exceptions. The majority realise that birds are, on the whole, their friends, and are pleased to see and hear them about. But insects are another matter. They must be killed if plants are to live; yet it is an exceedingly unpleasant task. And some of the ways which science has devised for killing them are peculiarly horrible. Insects have their diseases, like animals higher in the scale, and one method of getting rid of them, employed as yet more largely in America than in this country, is to spread these diseases among them. I believe the idea originated with the discovery by Pasteur that silkworms were liable to a bacterial disease. Since then it has been found that scale and many other insect pests often die from various fungoid diseases, and this has suggested a way of reducing their numbers. Here a curious complication comes in. For it is often necessary to spray trees with Bordeaux mixture or other poisonous washes, and these liquids destroy not only the insects attacking the trees, but also those attacking the insects on them. It is another instance of the fact that when man attempts to interfere with the balance of Nature he can never be sure of what the result will be.

### PLANTING OUT CELERY.

June 11th.—If Celery plants are each provided with a good ball of soil when they are transferred to the trenches, they rarely give much trouble; but if they are taken out of tightly packed boxes, or if they have to be obtained from a distance, they are sure to flag badly in strong sunshine. If the soil is soaked with water that will help them, of course; but it is not enough. Shade is also necessary. The question is, should it be permanent or merely temporary? Temporary shade is more difficult to manage than permanent. A common recommendation is to lay branches of trees across the trenches, but where are they to be procured? Even in the country it is not easy to get them, and in a town or suburban district it is impossible. Paper supported on sticks can be used, no doubt, but it is liable to blow about, and to damage the plants. Probably permanent shade during part of the day is best when the plants require time to get established, and this can be managed by having the trenches between rows of Peas, which will be cleared away not later than August.

### AVOIDING A GLUT OF PEAS.

June 12th.—In most gardens Peas are sown at intervals, in order to provide a succession. The result, however, is often unsatisfactory. Owing to the greater warmth as the season advances, the later batches grow more rapidly than the earlier ones, and not infrequently overtake them, and then comes a glut, followed by a complete cessation of supplies. One way of preventing this is to sow in different aspects; another is to stop the shoots in some of the rows, and thus to bring on the pods earlier than would otherwise be the case.

H. C. DAVIDSON.

# Famous British Gardens.

## WOOLVERSTONE PARK, SUFFOLK.

*Interview with Mr. W. Messenger.*

INDICATIONS that my journey was nearing its end were forthcoming when a turn in the road brought into view a handsome gateway, whose stone pillars are surmounted by a pair of crouching apes, the "supporters" of the arms of Mr. C. H. Berners, owner of Woolverstone Park (by whose courtesy I was able to visit the gardens on a pleasant day towards the end of May). The road from Ipswich runs through some of the prettiest scenery in Suffolk, the River Orwell, on the left, broadening out until it almost resembles a lagoon, while on the right stretch well-timbered lands and fertile fields. But I did not alight at the first gates, for Woolverstone Park is over four hundred acres in extent, and the entrance nearest to the gardens is two miles further on. Here Mr. Messenger—who has been in charge for rising twenty-seven years—awaited my coming, and we proceeded on our way across the park towards the mansion.

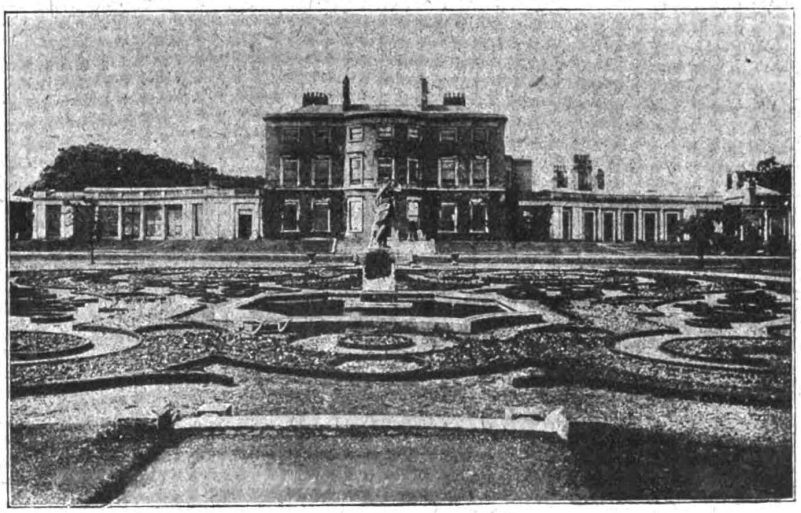
The air was rich with the fragrance of the Hawthorns—fine old trees which were white with bloom; and the changing tints of the leaves of the great Oaks, and Elms, and Beeches as the branches swayed in the sunlight, were altogether lovely. Here and there a tree, yielding to the force of the wind, which at times blows with fury from the North Sea, had bowed its head to the storm, and now, partly uprooted, grew picturesquely with its trunk parallel to the earth; in other places scarred or severed limbs gave evidence of the stress to which they had been subjected. All this, however, was not apparent at a first glance; for it is one of the charms of this park that its many undulations constantly open up fresh vistas, and its beauties are suggested, but not revealed at once.

In the middle of the park stands the parish church, which, though restored, still contains much of the original structure—said to date back to Saxon times—and contains many memorials of the Berners family. There are some fine shrubs in the churchyard, which is kept in order by Mr. Messenger.

The principal front of the mansion faces north by east, but as we approached from the south-west we crossed a splendid cricket field of five acres, which was being got ready for a match to be played in a few days' time.

"Before the war," said my guide, "county and other high-class matches were played here, but after 1914 it was not mown, except for hay, and last year the grass was cut only three times. It has received more attention this year, and to give greater firmness to the pitch it has been top-dressed with clay, as the natural soil of this district is very light and sandy."

And now, arrived at the main front, I was enabled to get an idea of the beauty and charm of the situation. A series of broad lawns and terraces descend by easy gradations down to the brink of the Orwell, which bends and winds in and out, making little bays, of which glimpses are caught through clearings in the woods, which abound everywhere. Across the river the green banks slope gently, and are crowned with more woods; and the brown, patched sails of a barge, as it lazily drifted with the tide, contributed to the making of a picture idyllic and peaceful. The scene has not always been so beautiful, for much of its effectiveness is due to the alterations that have been carried out under Mr. Messenger's supervision, four and a half acres of rough land being cleared, and added to the lawns.



BEDS ON THE LAWN AT WOOLVERSTONE PARK.

### RHODODENDRONS IN QUANTITY.

"You make good use of Azaleas and Rhododendrons," I remarked, as we walked from the upper terrace, and crossed towards the end of the first lawn, passing what was formerly the Italian garden, with its many Box-edged beds of geometrical fashion—now given over to annuals and perennials. "Did you make up a special soil for them?"

"The Azaleas are planted in the ordinary soil, which is free from lime; but for the Rhododendrons I used chopped turf and leaf-mould in quantity—no peat. The Azaleas are now nearly over, but as the Rhododendrons do not all bloom at once we get a fair show for some time."

The beds are on a large scale, to give broad patches of colour which shall be visible from

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the windows of the house. Thus, at the far side of the lawn a kidney-shaped bed of R. everestianum measures twenty-two yards by eighteen yards, and was an immense sheet of rosy-mauve. Closer in, and not quite so large, was a bed of John Walter, giving a mass of rich crimson; others in flower were Mrs. Halford, a rosy-salmon, and Charles Dickens, bright red. Each bed contains one sort only, and there are many choice varieties.

Of other subjects, a bed of seedling Azaleas was very pretty, even if the flowers were over, for the foliage was of many colours, and so, too, were the stems. A bed of Dorothy Perkins Rose, trained on Larch poles, had as carpetting Viola Kitty Bell, and though the Rose was not in bloom, the lavender of the Violas was very attractive. The wind sweeping across from the sea works havoc with many plants, making it difficult to grow any that require staking, such as herbaceous perennials; but on the lower terraces there is not this trouble to contend with, at least in the borders under the supporting wall, subjects of a semi-wild character doing well, amongst them Liatris spicata, Tolmieas, Forget-me-nots, and Irises, all of which were in bloom.

### "THE FIVE SISTERS."

But before descending the few steps to the next lawn, we stopped to look at all that remains of the Five Sisters—a group of ancient Elms, two of which are intact, the others being now little more than stumps. At one time these were one of the features of the lawn—indeed, of the park itself.

This lawn, like those lower down, has been made from the sloping hill, enormous quantities of soil being taken out and used to level up the higher ground. It is of half-moon shape, and the retaining wall is covered with shrubs, Berberidopsis corallina doing especially well, even though the aspect is north; while others that were thriving were Viburnum plicatum—a mass of bloom—Escallonias, Honeysuckles, and Cotoneaster horizontalis. Hereabouts, too, were more Rhododendrons in named varieties.

Then, down more steps, we reached another lawn, with a fine collection of flowering shrubs on the left, and a pergola backed by more shrubs on the right. Sheltering these on each side were tall trees, some of them original inhabitants of the park; while in the middle were beds which had been filled with Roses, now replaced in part with Azaleas of the Ghent and mol is types, all growing in similar soil. The Strawberry-tree (Arbutus Unedo), Berberis stenophylla (looking like a burning bush from its quantity of golden-yellow flowers), equally fine specimens of Berberis Darwinii, and double-flowering Cherries (James H. Veitch particularly good), caught the eye, and the richly tinted foliage of different varieties of Acer palmatum were indeed "pleasant to look upon."

The next descent brought us almost to the level of the river. A large bed of variegated Hollies and Hydrangeas is here, and Mr. Messenger remarked:

"The Hydrangeas flower very well, and come blue always—probably because of the iron in the soil; but up above they are always pink. Kniphofia nobilis is planted with them, and look very nice in autumn, their warm colours contrasting well with the foliage of the Hollies."

### THE CAT HOUSE.

In the days when smuggling was rife, and daring men ran constant risks in endeavouring to elude the authorities, the city of Ipswich saw many a fine cargo brought in on which no duty had been paid. One of the signals by which they could know, as they rowed up the Orwell, that the coast was clear, was the figure of a cat in the window of a lonely cottage on a projecting tongue of land, close to the spot where we were standing. When all was safe, a light behind the figure threw it into strong relief, and the smugglers landed with their booty; if there was danger there was no light. The cottage still stands, and is known as the Cat House, and looking across the tiny bay formed by the river I could descry the figure of a cat in the window.

THE POOL IN THE CLIFF GARDEN AT WOOLVERSTONE PARK.

Turning now to the left, we passed under some grand old Oaks to a spot where Nature is allowed full sway, save for the planting of tens of thousands of Daffodils, and other bulbs, which make a wonderful display in spring, "fluttering and dancing in the breeze." Near by, in an opening between the trees, is a bog garden, which was intended to be a home for Water Lilies, but as the water partly fails in summer, these died out, leaving Ferns, Japanese Irises, Bamboos, broad-leaved Polygonums, and other moisture-loving subjects in possession, with, also, Rhododendron ponticum. Still keeping on the outskirts of the wide half-circle described by the lawns, we came upon a magnificent Beech and other fine trees. The colours of the leaves, gold, and green, and yellow, was delightfully contrasted with the more sombre green of the Conifers, concerning which Mr. Messenger told me:

"In the hollows Conifers do very well, as the soil is moist; but higher up, where it is drier, they are not a success. Under the trees we have large batches of Daffodils and Narcissi, planted in blocks of one sort."

By easy steps we had been gradually ascending, and at last came again to the terrace from whence we started, but on the other side. Here is an enclosed Rose garden, with beds of Hybrid Teas. Half-standards of Teas, planted twenty years ago in triangles of one variety, are a feature; and one bed is filled with mixed old varieties, such as York and Lancaster, Queen Mab, and Austrian Brier, which were favourites with Mr. Berners' mother.

### A ROCK FERNERY.

The conservatory and Fernery—to reach which we had to go to the other end of the terrace—were next visited. Both of these were erected by Messrs. Pulham and Son. A series of stone vases, five feet or more across, were a feature at the back of the conservatory, and were filled with Regal Pelargoniums; in front smaller vases had various plants, including a lot of Begonia manicata.

"This is a good old Begonia," said Mr. Messenger; "and by growing two or three batches you can have it in bloom from February to the end of June. It is excellent for decoration—so dainty and effective; and is easily propagated by cutting up the stems of old plants."

The Fernery, which leads out from the conservatory, is constructed of Derby tufa, and is roofed over with glass. At the far end is a grotto with a dripping well. Adiantums, Hart's-tongues, and many others are established in the crevices, and Palms, Begonia Rex, Aralias, and other plants give a luxuriant appearance to the vegetation. As many of the plants are not hardy, heat is turned on when necessary; and the place being lit with electric light, it is enjoyable both by day and night, and in summer and winter.

This completed our tour of the pleasure grounds—all except the Cliff garden, which, though one of the most picturesque parts of Wolverstone, we were obliged to omit owing to lack of time. It lies some distance to the north of where we were, and is three-quarters of a mile in length, and from forty to eighty yards wide, sloping from an altitude of one hundred and twenty feet to the water's edge. It contains a choice collection of shrubs and trees, and in the pool are Water Lilies, with Bamboos round its edge.

Crossing the cricket pitch again, we paid a hurried visit to the model dairy embowered in a shrubbery, with an inside border of herbaceous plants and annuals. This dairy is occupied by a herd of pedigree Jersey cows, and is on most up-to-date lines. Thence, along an old "drift"—a Suffolk word for a back road—we entered the kitchen gardens, which cover seven acres all told.

A large mound with Vegetable Marrows was the first thing to catch the eye.

"They are growing on the rubbish collected from the gardens. This, at the end of two years, will be put on the soil," said Mr. Messenger.

"Is the soil here also light?"

"Yes; it is very light and sandy, with gravel subsoil. In consequence, we do not trench, but only bastard trench, as we cannot bring the bad soil to the top."

### A SYSTEM OF APPLE PRUNING.

Knowing that Mr. Messenger is an expert in fruit-growing, and that he is a highly successful exhibitor, I was interested in his explanation of how to grow his Apples and Pears:

"All the bushes are pruned as cordons. They are open in the centre, making them basin-shape, so that light and air can get to all parts. They are spurred back close, and fruit the whole length of the branches. I do all the Apples and Pears on this system, and some have been pulled out from pyramids, being tied out where necessary. As you see, they are mostly large bushes. Many have suffered from the cold winds and hail, and the crops will

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not be so heavy as was at first thought. The Apples that flowered earliest have set best."

In this section of the garden vegetables are grown between the rows of fruit bushes. Thus, some healthy-looking rows of Peas prompted me to inquire as to the favourite varieties.

"I consider Webb's Stourbridge Marrow is the best for maincrop. It grows rather tall, but is extra good if you can get sticks. Sutton's V.C. is also a splendid Pea, which I find does very well. In other parts of the garden we grow Improved Pilot, Laxton's Superb, and Gradus for earlies; and Peerless Marrow is the best mid-season Pea."

A thing which is very noticeable in these gardens—which, as I have mentioned, have an area of seven acres—is the amount of wall space. But although there is so much, none is wasted, and Peaches, Plums, Pears, Cherries, and other fruits are cultivated in quantity.

"I grow all the Peaches and Plums from maidens," said Mr. Messenger, "and so can train them to my liking. They are first planted against a low wall; then they are shifted to one higher, and finally put to a high wall. These shifts serve the purpose of root-pruning."

"Have you suffered much from silver-leaf?"

"It has broken out here and there on some of the trees, but I have noticed it always attacks the lower branches first."

### THE BEST GOOSEBERRIES.

A glance at the fruit cage, where the Gooseberries promise well, turned the conversation in that direction.

"I consider Warrington is the best Gooseberry for flavour; and others I like are Whinham's Industry, May Duke, Crown Bob, Rifleman, and Langley Gage. Some of the large Lancashire varieties are also very good, when you get to like the flavour, which is different from the others. I have grown these also as cordons on a north wall, and had them on table with Red Currants in October. But the Gooseberries on a north wall seemed to get American mildew badly, and they have now been replaced by Morello Cherries."

### AN ANCIENT MAGNOLIA.

On one of the walls facing south I noticed a variant from the fruit trees that everywhere else were abundant—climbing plants. There was Magnolia Soulangeana in flower; M. grandiflora, of course not yet out, but decorative with its fine, evergreen foliage, and with a trunk at least twenty inches in diameter—this is believed to have been planted some ninety years ago, when the wall was built; and M. conspicua, which had been a glorious sight, but was now over. Next to this, a yellow Banksian Rose was in full bloom; and beyond, covering both sides of an arched gateway, a Garrya elliptica. In this garden, too, were several long beds of Roses, grown for cutting, and I was told that many of the plants had been growing for twenty-five years, although they had been lifted and the thick roots shortened now and then.

Then, in what is known as "tne" kitchen garden—it was the original garden, most of the others having been added under Mr. Messenger's supervision—there are some broad herbaceous borders, which, in May, were delightful with Pæonies, perennial Candytuft, Lupins, Oriental Poppies, Campions, perennial Cornflowers, Violas, and Forget-me-nots.

"We have something in bloom from early spring to November, but they are at their best," said Mr. Messenger, "in the autumn, when the Michaelmas Daisies, Rudbeckias, Heleniums, and other late flowers are out. Among the best of the Michaelmas Daisies are Climax, Hon. Edith Gibbs, Riverslea, and cordifolius. I thin them out to six growths to each plant, and stake them carefully; and every three years shift their position. When I first came here these borders used to be filled with Geraniums and other bedding plants. I also planted the low arches at the back, which are clothed with Roses and Honeysuckles."

A quarter of this garden was filled with Cabbages Harbinger, April, and Flower of Spring ("this is the best for autumn sowing"), not one of which had bolted; and another quarter had Onion Improved Reading, which two men had sown in two and a half hours by the aid of a Planet drill. Maincrop Carrots follow early Potatoes, being sown the first week in July.

### RENEWING OLD VINES.

The greenhouses are many, and these we took as we went through the gardens. In the late Vinery, which used to be early, but has been altered because it was not possible to get the necessary heat, are Black Hamburgh, Foster's Seedling, and Madresfield Court, with their roots outside. Some of the stems of the original plants, put in forty years ago, are still to be seen, but they have been renewed three or four times.

"It is a mistake," said Mr. Messenger, "to turn out old Vines under the idea that they are worn out, and to put in young ones. My plan is to make up the border afresh, and take up young rods. You not only save the expense of new plants, but do not have to wait for crops."

MR. W. MESSENGER,

who since 1893 has been in charge of the gardens at Woolverstone Park.

"You do not have other plants on the borders where the Vines are?"

"No; it is, I consider, bad policy to stand plants there. If you have to put on heat for them, the Vines get mealy bug; and if you water them in winter, when the Vines should be quiet, the soil gets sour, and so the Vines do not get justice. There should be plenty of ventilation in winter, for frost soon settles mealy bug."

In the mid-season Vinery, as we entered it, the air was delicious with the scent of the Vines in flower. These are all new rods, looking very promising, with foliage wonderfully clean and healthy. The varieties are Black Hamburgh, Alicante, and Madresfield Court, and the roots are both inside and out. While the young rods were developing the old ones were retained, so that cropping was not interrupted.

The late Peach house, which was new just before the war, is a large and well-built structure, and contains a number of varieties.

"What do you regard as the best?" I asked.

"Pine Apple is, I think, the finest Nectarine, though Humboldt runs it close. Others here are Pitmaston Orange, Spenser, and Dryden; and the Peaches are Dymond, Bellegarde, Early Grosse Mignonne, Thomas Rivers, and Princess of Wales. Thomas Rivers was a pot plant, and the others were taken off the walls. One variety was twenty-five years old when I moved it here."

"And did it suffer no harm?"

"No; but of course we use care in moving them. I do not hesitate to shift big trees as required. In the other Peach house there are, besides some of the same varieties, Stanwick Elruge, a grand Nectarine; and the old Crimson Galande, still one of the best Peaches we have for forcing. It comes a lovely colour, and is a fine market variety. In the early Peach house there are Duke of Cornwall, Napier, Peregrine, Hale's Early, and Early Rivers."

The Fig house, the Melon and Cucumber houses, and others, were visited in turn, and then we turned our attention to the plant houses. The stove—or what was formerly the stove, for the plants have been done away with—had nice plants of Gloriosa superba and Rothschildiana, grown on wires and trained along the house. Coleus for the conservatory, a few Calanthes, Caladiums, and Anthuriums were also here.

"Anthuriums will stand an intermediate temperature, after growth is made," said Mr. Messenger; "but while growing will take all the heat you can give them. But we learned during the War that many things are better off through not being coddled. Owing to the difficulty of obtaining fuel, we had to clear most of our plants out, and they will not be replaced."

"You have a pretty basket Begonia," I remarked, as we entered the next house, a Fernery.

"That is an old bedding variety, called Count Zeppelin, which I tried for basket work. It droops and makes a fine subject, as its orange-scarlet colour is so rich. As we had so little heat here, many of our choice Ferns died. The Arums have been good, and we use a lot for church decoration."

"Do you dry them off after flowering?"

"No; I plant them out, as I find they do better that way."

### GREENHOUSE ROSES.

In the "slip" garden—an old-fashioned name for the herb garden, so important to our great-grandmothers—is an interesting old greenhouse, which used to be filled with hard-wood plants. In each section it has a raised bed in the middle, at present filled with Tomatoes. On the stages are Perpetual-flowering Carnations, and other modern plants. But in each bed was a Fortune's Yellow Rose, which covered half the roof, and was a mass of blossom.

"I have had to cut back these Roses a lot, in order not to shade the Tomatoes; but, as you see, they are still wonderfully strong. It makes a fine bowl as a cut Rose, and lasts a couple of days, at least. If arranged carefully it is very effective. The other Rose, which also does well, is Climbing Niphetos. They were planted to cover the roof, and give shade to the plants underneath, but that is altered now."

A visit to the Malmaison house revealed another fine Rose on the back wall. This was Lamarque, and I was informed that twenty-three dozen flowers had been cut that week; while there were many more to come on.

"It is a clean grower, and altogether a splendid Rose for greenhouse work. The Malmaisons, by the way, have air on all the winter, except when there is severe frost or snow. The principal varieties are Nell Gwynne, Duchess of Westminster, Thora, and Trelawney."

Mr. Messenger, whose horticultural career commenced at Sprotborough Hall, near Doncaster, and was continued at Birdsall, and at Hulton Hall (where he was foreman for eight years under the famous Mr. McIndoe), has been twenty-seven years at Wolverstone. He is a well-known exhibitor, and has taken many prizes at the principal shows in the Eastern Counties and in London. Mrs. Messenger, too, is an expert decorator, and has been very successful in classes for table decorations.

W. J. CHITTENDEN.

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Oxford Dictionary of National Biography

**Middleton, Cecil Henry** (1886–1945),
*horticulturist and broadcaster*
by Jeff Walden
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**Middleton, Cecil Henry** (1886–1945), horticulturist and broadcaster, was born on 22 February 1886 in the Northamptonshire village of Weston by Weedon, the son of John Robert Middleton and his wife, Sarah Davis. His father was head gardener to Sir George Sitwell, and Middleton grew up alongside Edith, Osbert, and Sacheverell. At an early opportunity he entered his father's trade: by the age of thirteen he was working on the estate, and at seventeen, with 50 *s*. in his pocket, he left for London.

Middleton worked in the seed trade, studied at evening classes, and became a student gardener at Kew. On 10 August 1912 he married Rosa Annie (*b*. 1880/81), daughter of George Joseph Jenkins, a hat shape maker. During the First World War he was engaged on food production in the horticultural division of the Board of Agriculture and Fisheries. Having obtained the national diploma for horticulture, he joined Surrey county council as an instructor. It was in this capacity that, in 1931, he was approached to broadcast for the first time.

The BBC had broadcast gardening talks from within a few months of its inception in 1922. They ranged from the loftier traditions of the subject, represented by speakers such as Vita Sackville-West and Marion Cran, to a short weekly bulletin of practical advice compiled by the Royal Horticultural Society. This was entirely impersonal, read by an anonymous announcer, and peppered with Latin names. With broadcasting approaching maturity, this was deemed unsatisfactory, and the BBC asked the society to recommend potential speakers. Middleton's name was put forward, and he duly appeared at the microphone on 9 May 1931. His opening words, ‘Good afternoon. Well, it's not much of a day for gardening, is it?’, demonstrated the unaffected conversational style of the born broadcaster which was to make Middleton one of the best-loved speakers of the golden age of radio.

Initially, Middleton was one of a pool of speakers operating under the auspices of the Royal Horticultural Society. In September 1934 he was given his own weekly series, *In the Garden*. Originally transmitted on Friday evenings, the programme was transferred to Sunday afternoons in October 1936. It continued, with summer breaks, until Middleton's death, and was heard at its peak by three-and-a-half million listeners.

It was clear that many of Middleton's listeners were not gardening enthusiasts, but were attracted by the personality of the speaker. The writer and critic Wilfrid Rooke Ley summed up his appeal:

> It is the art of Mr Middleton to address himself to the lowest common denominator of horticultural intelligence without the faintest hint of superiority or condescension. He will assume that your soil is poor, and your pocket poor. All he asks is that your hopes are high and your Saturday afternoons at his service ... he has the prettiest humour. He

> stands for common sense and has the gift of consolation. (*Catholic Herald*, 27 Sept 1935)

Middleton published a number of books. The first, a collection of broadcast talks on gardening, appeared in 1935. Later works included *Colour All the Year in my Garden* (1938), *Digging for Victory* (1942), and an encyclopaedia of gardening (1944).

Despite his modesty, Middleton was fiercely proud of the tradition he represented, deploring the caricature of gardeners as 'funny old men with battered hats and old moth-eaten trousers, and with whiskers and very little intelligence' (BBC WAC, transcript of broadcast talk, 24 May 1935). No one could have applied this description to the neat, bespectacled Middleton who claimed:

> Generally speaking, they're very much as other men are—perhaps a little better in many ways: wholesome, decent living people who love their work—usually straight and often deeply religious people, perhaps without knowing it, and certainly without shouting about it. They work hand in hand with Nature and they know that their work is under the direct supervision of the Great Architect. (ibid.)

Middleton broadcast additionally to schools, in *Children's Hour*, and was the first television gardener—a garden being created at Alexandra Palace for this purpose in 1937. During the war he lent his support to the Dig for Victory campaign, by broadcasting and lecturing around the country. He died suddenly on 18 September 1945 as he left his home, 17 Princes Avenue, in Surbiton. His wife survived him. Ten years later a memorial gate was erected by public subscription at the entrance to the garden of the BBC building at 12 Cavendish Place, central London. Since 1990 the Middleton Gate has been at the BBC Written Archives Centre in Caversham, Berkshire.

JEFF WALDEN

**Sources** A. Briggs, *The history of broadcasting in the United Kingdom*, rev. edn, 5 vols. (1995) · P. Scannell and D. Cardiff, *A social history of British broadcasting*, [1] (1991) · *The Times* (19 Sept 1945) · *Catholic Herald* (27 Sept 1935) · b. cert. · m. cert. · d. cert. · *CGPLA Eng. & Wales* (1946) · interview, BBC WAC [transcripts]

**Archives** FILM BFINA, news footage

**Wealth at death** £17,560 10*s*. 5*d*.: probate, 15 Feb 1946, *CGPLA Eng. & Wales*

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Jeff Walden, 'Middleton, Cecil Henry (1886–1945)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Jan 2011 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/65428, accessed 28 Nov 2014]

Cecil Henry Middleton (1886–1945): doi:10.1093/ref:odnb/65428

March, and, finally, twenty-nine pounds in April. The total, including the odd ounces, which I have omitted, comes to two hundred and forty-five pounds, and the average weight per plant to just over four pounds and threequarters—a very satisfactory result, considering the prices that usually prevail at that season. It is laid down as essential that the varieties should be carefully selected; that they should be planted so as to receive the greatest possible amount of light; and that they should be fertilised by hand on sunny days. It is also recommended that the plants should be forced early into flower by keeping them in 3½-in. pots until they are ready to go into the border. For test purposes, some were grown with three stems and others with one, and, while the latter gave one pound and a fifth of fruit, per square foot of bunch, the former gave only four-fifths of a pound. The single-stem method of training is now almost universally practised in this country, and these experiments seem to put its superiority beyond question.

July 31st.—"Well, Jacob, how are the Beet-roots getting on?" "There's only one of them left, sir, and that's a Mangold!" This was funny, otherwise I should have been more vexed. He didn't know what had happened, he proceeded to say: he had thinned them and hoed them, and when next he went to look at them they were gone. A visit to the scene speedily revealed the cause of the disaster. He had not protected them in any way, and the tops had been hacked to bits by sparrows. I once tried to grow Chilian Beet, and by means of netting succeeded in getting some plants of a large size, so large that I thought it safe to remove the disfiguring protection. They were destroyed almost in a single day, the sparrows cutting right through each mid-rib—I watched them at it, and they worked with extraordinary vigour—and so bringing down every leaf. Since then I have never repeated the experiment. I have lost whole rows of ordinary Beet in the same way, though this happened only once or twice in the course of years—always, I fancy, during a spell of dry weather such as we had in this district in the second half of June and the beginning of July. There may, therefore, be some ground for the idea that much of the damage done by birds is due to thirst, though here they can get plenty of water, for there is a pond in the garden and another close by. Apparently they like something with more flavour.

August 1st.—Many persons are afraid to attempt to grow Iris Kæmpferi, one of the handsomest species of a remarkably handsome genus, because of the general impression that it will not succeed except in water. It certainly grows far more vigorously in a damp situation, as at the edge of a pond, but I have a number of plants in the mixed border, and they have flowered remarkably well. They have not even been watered, though they are fully exposed to the sunlight all day long. I think the secret of success is farmyard manure. That supplies the necessary moisture.

H. C. Davidson.

*(To be continued.)*

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At the present time perhaps the finest plant in the country is at Godolphin Vicarage, near Helston, Cornwall, where there is a yellow Calceolaria twenty feet in circumference.

The "Scientific American" states that a new species of Violet has been discovered by Miss Lilie Angell, of Minton Place, Orange, and Charles Louis Pollard, curator of plants at the Smithsonian Institution, has named the species Viola Angellæ, after the discoverer. The leaves are ovate-ovate in outline, with a broad sinus, irregularly five to seven-lobed, or some of them merely deeply sinuate. The lobes are all obtuse, more or less crenate, and the flowers are violet-purple, darker at the base. The leaves attain large dimensions.

## FAMOUS GARDENERS AT HOME.

### No. 96.—Mr. JOHN MILBURN, at the VICTORIA PARK AND BOTANIC GARDEN, BATH.

A CITY of many attractions, Bath is well worth a visit from people interested in horticulture if only on account of the Victoria Park and Botanic Garden, of which Mr. John Milburn is the superintendent. Fifty years ago, it is true, there was a horticultural garden on the same site, but it only existed for four or five years. Then the ground was let, and a house was built. But subsequently the house was demolished, and sixteen years ago the executors of the late Mr. Broome, F.L.S., of Elm Hurst, Bathwaston, a celebrated botanist, announced that he had bequeathed his collection of Alpine and herbaceous plants to the City of Bath, for the benefit of the people, and Mr. Milburn was engaged from the Royal Gardens, Kew, to go to Bath and plant the new collection, and take charge of the old one. The honorary curator at that time was the late J. W. Morris, F.L.S., and he was responsible for some of the plans followed by Mr. Milburn when laying out and planting the gardens. As soon as Mr. Milburn had finished the work, the Committee invited him to take over the management of both park and garden, and he has since had the direction of the entire undertaking. The wisdom of the appointment has been more than justified. Mr. Milburn has brought to bear upon his duties the experience gathered at Holker Hall, where he was employed for three years, and at Kew, where he spent most of his two years in the hardy plant department, and the natural taste and sound judgment of which he possesses more than the average share. Having laid out the Botanic Garden, his ambition has been to increase its treasures and to perfect its beauty, with the result that competent critics agree it affords the most conclusive proof which could be offered of his claim to be entitled a famous gardener. In truth, it is difficult to stroll through the park, teeming with trees and shrubs, both rare and interesting, or spend an hour in the garden, without envying the citizens of Bath the possession of a resort which must be a perpetual source of gratification.

Mr. J. Milburn.

As Mr. Milburn remarked, when we started at the entrance in Queen Square on our round of inspection, "It is fortunate that the Park Committee has all along had some members on its board who have been interested in trees and shrubs, and have always been on the look-out for new varieties that would be likely to grow in their soil."

"Was it their idea," I asked, as we proceeded

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down the avenue of a mile long, "to label all the trees with the date of their introduction into this country?"

"Yes; that has always been a practice, and visitors who want to know the varieties often express their appreciation of it."

"When was the Park formed?"

"It was laid out in 1830, from the plans of Mr. Edward Davis, a Bath architect, and the father of Mr. C. G. Davis, the present city architect, and it was opened by Queen Victoria in the same year, seven years before her accession. It was created at the expense of some of the wealthier inhabitants of the city, who provided £4,000 for the purpose. The park and garden cover nearly fifty acres."

"Someone selected a splendid position for your Coronation Oak?"

"It was chosen so that the Oak should have plenty of room to spread its branches. Colonel Taylor, C.B., treasurer of the park, planted it on Coronation day, and the tree was given by Major Simpson, the chairman."

"Have you any particular system with respect to bedding?"

"Merely that the flowers are arranged for contrast in colour. For instance, the centre bed contained, in the spring, Tulips, with a groundwork of the double white Arabis, whose spikes are just like Lilies of the Valley. We use Cannas, Begonias, and Pansies largely for bedding purposes."

The Botanic Gardens, Bath.

"You are exceedingly rich in Elms?"

"Our collection is said to be one of the finest in the country. We have no fewer than eighteen varieties. Some of the Elms are pyramidal in shape, and others are spreading. Skirting the band lawn is a fine collection of various Thorns, which in the early part of the year are very beautiful. Of the other trees we have already passed, mention might be made of the fine old variegated Turkey Oak at the entrance. Koelreuteria paniculata (the Chinese tree) is another fine specimen. All the Chinese trees and plants have a very distinct character, and this one especially. The Hop Hornbeam, the Dogwood, with its golden masses in the spring, and the Beeches, with their variegated leaves, do well here."

"I conclude that, as to trees, one of the objects aimed at is to keep up the varieties?"

"The Committee always try to do that. We have several Tulip trees of considerable age, including the golden-leaved variety. The Tulip tree is commonly called the Saddle-back Leaf. These trees flower very freely at Bath, and are in perfect health."

"Are Cotoneasters well represented?"

"Very fairly. It is most interesting to visitors to compare the "Cotoneaster" frigida with the varieties of Cotoneaster which grow on the walls. The leaf, fruit, and flower are the same. One of the most noteworthy of Cotonealsters is buxifolia Wheeleri, with a beautiful weeping habit. The park is rich in early-flowering trees, such as the Wild Cherry, the double-flowering Peach, the Almond, and the three-lobed Plum (Prunus triloba). The Amygdalus (Almond tree) flowers in February."

"Have the Bath people any favourites amongst flowering shrubs?"

"One of their favourite trees is the purple-flowering Magnolia (Magnolia obvata purpurea). They come to the park day after day in the early spring, on purpose to see its flowers expand. The Angelica tree is growing close by. Among our special features is Zelkova crenata, a West Asian tree which partakes of the character of the Elm and the Plane. The leaves resemble those of the Elm, and the bark peels like that of the Plane."

"The wood looks very hard?"

"It is almost as hard as iron. There are one or two specimens of the Chinese Fan Palm which have been planted over forty years, and some fine specimens of Cupressus macrocarpa."

"Among striking shrubs," continued Mr. Milburn, "is the Hare's Ear, which has been in the park more than thirty years. It is a bright, glowing shrub, and the leaf is exactly the shape of a hare's ear. The Paulownia develops its flowers through the autumn or winter, but it is only occasionally that the flower opens."

"Have you seen it open here?"

"Twice. In the Duke of Devonshire's garden, at Holker Hall, there was a Paulownia tree which had not flowered for forty years, and when it did flower there was considerable excitement. An extraordinary Elm, a dwarf variety of Ulmus campestris, is nevertheless almost as old as the big Elms in the avenue."

Proceeding to the second part of the park, in which is an obelisk, erected on the attainment of the late Queen's majority, in 1837, Mr. Milburn called my attention to an Ash which is recognised as the king of the park trees, as it existed previous to the park. Here, too, is one of the few historical trees, namely, the Oak planted on the wedding day of the present King, in a position by no means comparable to that of the Coronation Oak.

"One of the showiest trees in this part," said Mr. Milburn, "is the Tree of Heaven, so called on account of its lofty tendency. There are also some magnificent Turkey Oaks, a wonderful lot of Evergreen Oaks, Copper Beeches, and a very fine specimen of Weeping Scotch Elm."

"You have a nice piece of ornamental water here, with a pretty bridge?"

"Yes: this part of the park was designed by Mr. Milner, about twenty years since. When he took it in hand it was merely a circular pool. It is now generally considered a delightful corner."

"I observe that Water Lilies are not grown?"

"That is because of the water fowl, but Water Iris and Bulrushes have been started. The Golden Yew, which ought to be made more of, is rather a feature here, and the collection of Hollies is rather noteworthy. In the spring the Osmanthus (green and variegated) flowers beautifully."

There were a great many other things that merited a note, but we had still the botanic garden to explore, and we hastened on to the gate which separates it from the park.

The situation is worthy of the contents, and commands a view of the most delightful surroundings. My attention was first called to the centre rockery, and here, as in the whole of the garden, planting has been done so as to produce, as far as possible, a succession of flowers throughout the year.

"You might mention some of the varieties you have in spring?" I said.

"Such things as Saxifraga Boydii, S. Boydii alba, S. Burseriana, S. lutea purpurea, the Netted Iris (Iris reticulata), I. histrio, I. histrioides, Dog's-tooth Violets, species of Crocus, Squills, and Grape Hyacinths."

"There are so many lovely and out-of-the-way

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plants at present in flower amongst your pretty rockwork, that I can only ask you to name those which may be considered the most interesting."

"In that category may be included Anthyllis erinacea, large plants of Astragalus tragacantha, Perowskia atriplicifolia, Silene quadrifida, Sedum trifidum, Linaria alpina, and its variety, alba rosea, Paronychia capitata, a large patch of Alyssum montanum, Teucrium pyrenaicum, Statice Dodarti, Geranium argenteum, Potentilla argentea, Gentiana Andrewsii, Motina longifolia, Œnothera speciosa rosea, and Alpine Poppies in variety."

"And in the ravine?"

"There are in the ravine many flowering shrubs, interspersed with small-growing Coniferæ, and the sunny positions are given up to such things as Androsaces, Sempervivums, Saxifraga, etc., and the cooler parts to Anemones (including Anemone polyantha), Primulas, Ramondia, Blood-root (Sanguinaria canadensis), S. canadensis grandiflora, and Jeffersonia binata (the twin leaf)."

"I notice that, planted amongst large patches of Erica herbacea carnea and E. herbacea alba, you have a striking specimen of a new Thistle?"

"It is a specimen Onopordon bracteatum, which is much admired on account of its silvery-grey foliage and flowering stem over six feet in height."

"It forms a beautiful contrast with the green of the Ericas."

Having remarked on the several varieties of Barberry grouped together for comparison, further on, I noted some of the other features of the ravine.

"They include," Mr. Milburn observed, "the Shortia galacifolia, Hunnemannia fumarifolia, the new Corydalis thalictrifolia, and the pretty little annual Corydalis glauca, Hypericum Coris, H. Richeri, H. orientalis, and H. polyphyllum, Arnebia cornuta, Chrysobactron Hookeri, Coronilla iberica, a very pretty variegated Spurge (Euphorbia amygdaloides variegata), a fine plant of Rubus Australis, Arenaria balearica, the Balerian Sandwort, carpeting the ground and rocks with green, and studded all over with its small, white, star-like flowers."

"What is the name of the bright green carpet plant with white flowers?"

"Hutchinsia alpina. The collection here also includes Genista tinctoria flore-pleno, Wulfenia carinthiaca, Rhododendrons ferrugineum and hirsutum, Eryngium alpinum, Acantholimon androsaceum, A. venustum, and A. glumaceum, Armeria juniperiana, and Lithospermum graminifolium."

"The fringe of various Bamboos on the north-east side of the small bog garden, and its vicinity, looks very healthy?"

"The soil suits them admirably. In the bog-garden we also grow Saxifraga Fortunei and S. pallata (both distinct species, requiring moisture), Salix reticulata, S. serpyllifolia and S. herbacea, Cardamine trifoliata, Cypripedium spectabile, and several other Ladies' Slippers, Eremurus himalaicus and E. Elwesianus, Lilium giganteum, Anemone rivularis, and Tropæolum speciosum."

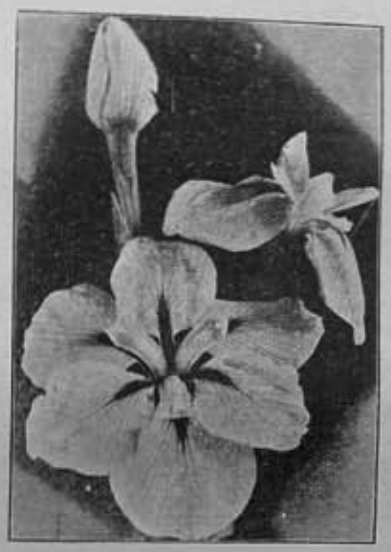
"As to the trees and shrubs in the garden, which do you consider the most notable?"

"Among them are the Judas tree (Cercis siliquastrum), the Manna Ash (Fraxinus ornus), the pretty Fraxinus Mariesii, the Constantinople Hazel (Corylus colurna), the Bastard Heath (Fabiana imbricata), Azara microphylla, Rubus deliciosus, Carpenteria californica, Cedrus atlantica glauca and C. atlantica aurea, Veronica Hulkeana, Cœsalpinia japonica, Coletia horrida, the golden-leaved Catalpa, a specimen of Sophora tetraptera, eight feet high, Ozothamnus rosmarinifolius, Ononis fruitcosa, Cornus florida, and Photinia serrulata. There is one class of plants which will not grow here. The lime in the soil prohibits the growth of Ericaceous plants."

"Two other features claimed special attention before I left, with much regret, this scene of the triumph of horticultural skill. In a large, irregular-shaped bed of Fly-Iris are planted Tea Roses, which bloom after the Irises are over, and were beautifully in flower. Equally pleasing was a similar irregular belt of hardy Ferns, including many good varieties, with Foxgloves planted in amongst them.

At the extreme end of the park is a charming spot known as "The Dell." Formerly a disused quarry, it was converted into a small Pinetum many years ago, owing to the natural shelter it provides, and among the fine collection of trees and Conifers which merit special attention are a magnificent specimen of Wellingtonia (Sequoia gigantea), more than fifty feet high, the Redwood, S. sempervirens, sixty feet high, a Weeping Yew presenting a front of about fifteen yards long, and several species of Pinus.

Finally, Mr. Milburn informed me that the park and garden, with a staff of ten, are maintained by means of voluntary subscription, and that, in addition to his own duties as superintendent, he is secretary of the local branch of the Gardeners' Benevolent Institution. At the



Iris Kæmpferi seirin.

Bath Rose Show, last month, the exhibitors gave their spare blooms to be sold for the benefit of the fund, and the sum realised was £14. The exhibitors at other horticultural gatherings might be recommended to go and do likewise.

Alfred Wilcox.

## LETTERS FROM A LADY GARDENER.

### No. 53.—BASKET PLANTS, AND BOG IRISES.

DEAR KATE,—I hope you have plenty of basket plants, for many flowers look their best when hanging on a level with (or just above) the eye, and a conservatory is always improved by a good selection of hanging baskets. Even in a verandah, or suspended from light iron-work on a balcony, they may be used with advantage; but in this case, it is necessary to grow only such things as can be trusted to stand great dryness, for the air soon absorbs all the moisture from a plant in a basket, if in the sunshine out of doors, and few plants, except blue Lobelia, and Ivy-leaved Pelargoniums, will do well in such a position. But under glass (where the atmosphere can be kept fairly moist by watering the paths twice a day in warm weather) there are plenty of suitable plants, especially if the glass roof be slightly shaded by climbers, or some other means.

Achimenes (of which I sent you a photograph on February 7th) make a wonderfully beautiful basket; ours, which is just over, has been a great success, for it was simply one mass of fine blooms. Another pretty thing for a basket is Oxalis rosea, a pink Sorrel, which produces a large number of light sprays of blossom, and has pretty foliage, too. Then several Campanulas (fragilis, garganica, etc.), in blue and in white, are charming, hanging their delicate bells down below the basket in profusion; they do well in a sunny window, but they do not care for much fire-heat, nor do the Oxalises, and both need only ordinary good soil, being repotted (and, if necessary, divided) in the early spring. Then, tuberous Begonias (especially those of the multiflora group, with a quantity of rather small, double flowers) are beautiful basket plants, but they like a rather shady position, and need a quantity of water twice a day when in bloom. If you want to have plenty of them for next year, you should sow the seed now, as it will germinate without fire-heat in the middle of the summer, but the seed must not be covered with soil, and should be sown on shallow, fine soil, laid to the depth of a quarter of an inch quite flatly over plenty of drainage, in a small wooden box such as one buys Figs in. Cover this with glass (allowing a crack of air at the corners, however), and this, again, with a piece of paper, for the seeds must be shaded, as they are not covered. Begonia and other very minute seeds should never be watered from a can, as this floats them about, and, naturally, they cannot take hold of the soil under these circumstances; you should always, therefore, sow them in a box or pan small enough to lower into a cistern or tub of lukewarm water, holding the box so that the water never rises to the surface, though it just appears at the corners of the box. Capillary attraction will do the rest very quickly, and keep the surface moist without interfering with the tiny seeds. The plants (which are the smallest possible things at first) should be pricked out, when about a month old, into a rather larger box, mostly of drainage, covered with a layer of small lumps of fibrous peat, an inch deep, and this, again, with very finely-sifted soil, half an inch deep. To get this soil fine enough is not easy with an ordinary sieve; we fall back upon the kitchen utensils very often, and find a Potato-masher (which is past its work in the kitchen) an excellent fine sieve for soil, or you can get a gravy-strainer for the purpose at the iron-monger's. The soil for sowing fine seeds should be quite dry to go through the sifter, and old potting-soil, from under the potting-bench, is good material, with a little silver sand and powdered charcoal mixed with it; but, before you sow the seed, you should make it quite level with the back of the trowel, and lower the box (as above mentioned) into warm water, so that when you disperse the seed on the surface, it has a comfortable warm bed to start with. You will find it a good plan to mix the seed (which looks like a tiny bit of red dust) with half a teaspoonful of glass sand (fine white stuff), and pepper this mixture evenly over the moist, warm surface of the soil, from a perforated tin, or, failing that, a pepper-pot.

Our bogs (which, you know, are in half-casks, lowered into the side of a grass bank) are now most beautiful, for the Japanese Irises (Kæmpferi) are in full bloom, and very handsome they are. The first to open its flowers was a double Iris, in white and gold; Seirin is its Japanese name, and it is a great beauty. I send you its portrait, and you will see, on comparing its bloom with the

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contain 26.22 per cent., and the haulm only 6.4 per cent; Wheat contains 11.3 per cent., and the straw only 3.5 per cent. Compare with these percentages those of plants not ordinarily grown from their seeds—Potatoes 2.24, Turnips 1.1, Parsnips 1.3, and Cabbages 3.3. It is the same with flowering plants. If for any reason they are allowed to seed, they take far more nitrogen from the soil than they would otherwise do, and unless this nitrogen is replaced, deterioration must follow.

**Flowers and Vases.**

February 15th.—Generally speaking, the simpler the vase for cut flowers, the better, for if it diverts the attention to itself it necessarily detracts from their effect. To this rule there are, I think, some exceptions. Some flowers are so quaint in form, and, it may be, in colouration, that an uncommon setting enhances their beauty, and among them I would place the Passion-flowers. The illustration shows a single flower arranged with its own foliage in a vase of curious design, with very artistic effect. There is, perhaps, a slight suspicion that it is "sitting for its photograph," but the suspicion does not force itself upon you disagreeably. It is not sufficiently strong to make you hear the photographer's "Now then, look pleasant."

H. C. DAVIDSON.

# Famous Gardeners at Home.

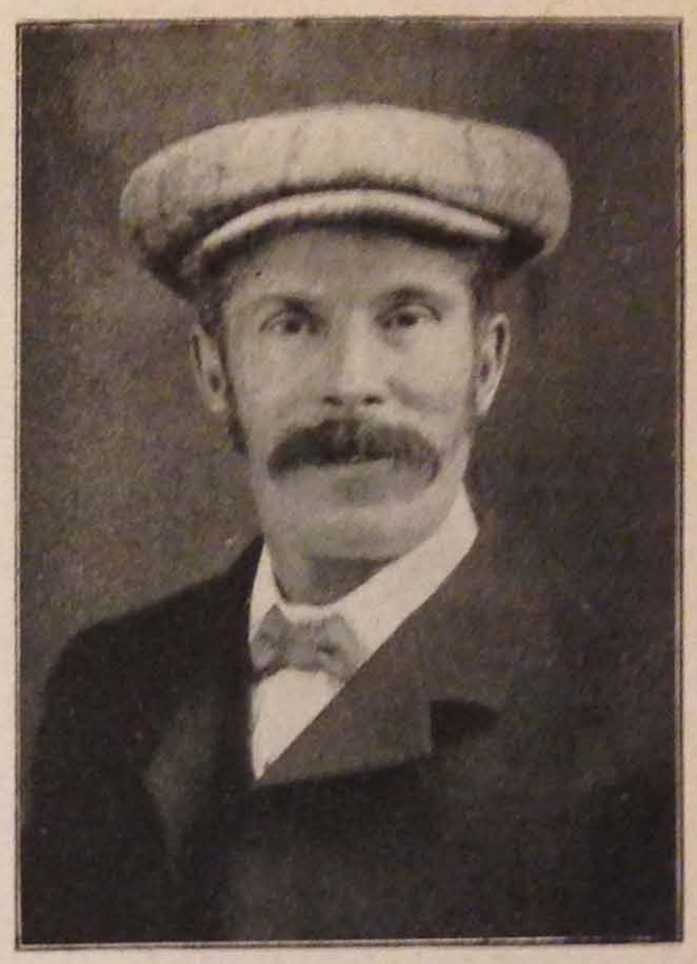
No. 275.—MR. GEORGE MILEHAM, AT THE GARDENS, EMLYN HOUSE, LEATHERHEAD.

THE name of Mr. George Mileham is known far and wide as that of an extremely admirable Chrysanthemum grower, who has raised a number of very popular novelties, has shown with great success at many exhibitions, and possesses an exceptional knowledge of the best methods of cultivation. Not that Mr. Mileham is at all a man of one idea. The gardens under his charge at Emlyn House, Leatherhead, which I visited towards the end of November, by the courtesy of Mr. A. T. Miller, the owner—whom I had the opportunity of congratulating upon his collection of Chrysanthemums—prove that he is a singularly capable, all-round gardener. Emlyn House has a handsome exterior, and there are beds of Rhododendrons and other shrubs in the vicinity. But there is nothing about the entrance to indicate the beauty and extent of the gardens which lie behind, right down the slopes to the River Mole. On the occasion of my visit, Mr. Mileham suggested that we should work upwards, and we, therefore, started looking round at the bottom slope, where a Lily pond, with Nymphæas alba and lutea, is a pretty feature. Here, too, near the boat-house, are some very fine Yews over three centuries old, from which a branch has never been cut off. To the right is an extra kitchen garden, which is used not only for vegetables, but also for working up young stock in the shape of fruit trees. As Mr. Mileham explained,

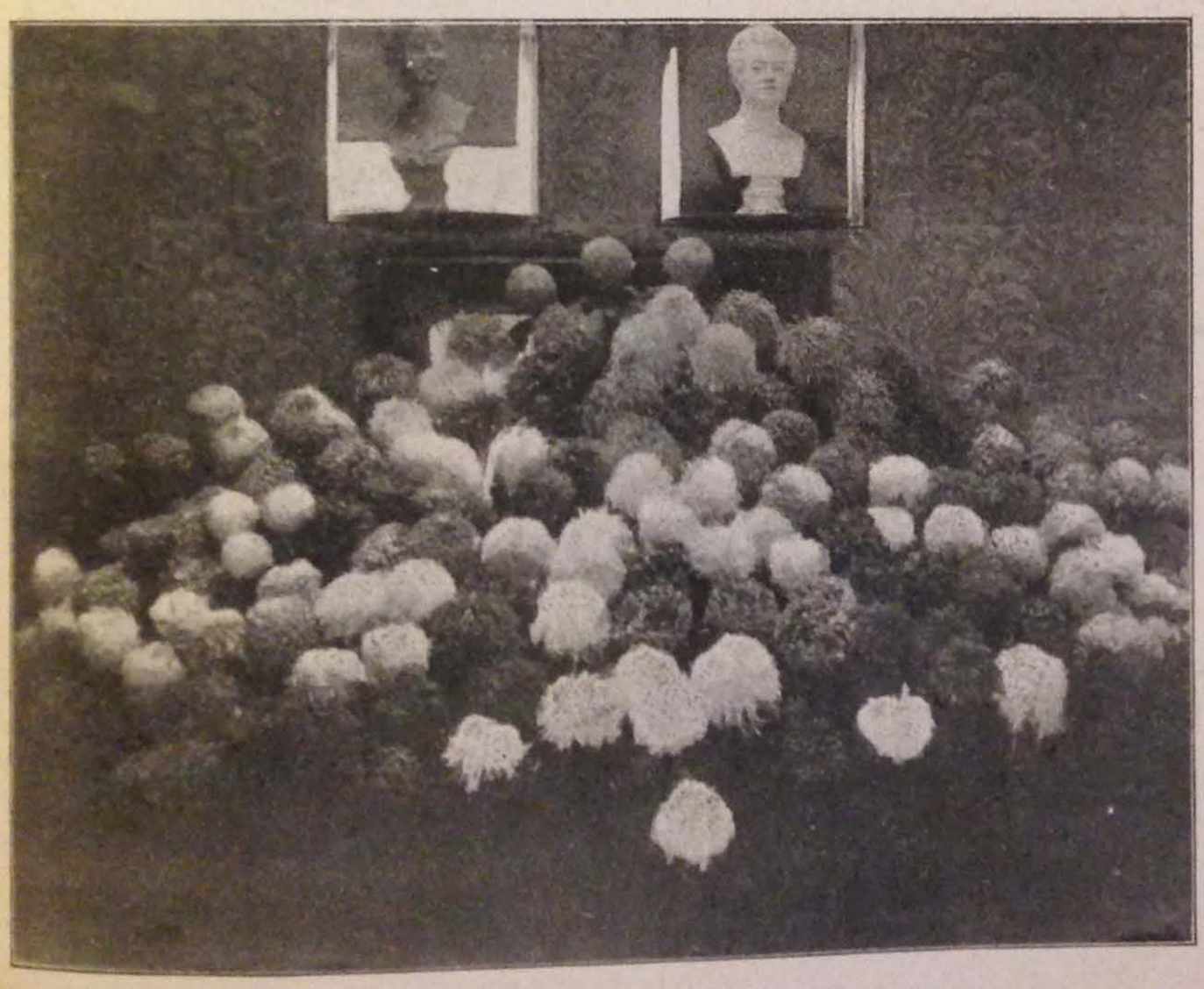
"The soil is exceptionally good, being a stiffish loam, in which one can dig down three feet deep. The Apple trees here include Striped Beefing and Mère de Menage (from which we get the best crops), Warner's King, American Mother, Peasgood's Nonsuch, Cox's Orange Pippin, and Blenheim Orange. The last does well, and the trees bear crops every year. The Plums are principally Jefferson's, Golden Drop, and Greengage."

"And vegetables?"

"Any kind thrives in this ground. But I go in for trenching. This has been trenched three times since I came to Emlyn House, nineteen years ago, and I find that trenching pays. Seakale is grown largely, four hundred crowns being used for forcing inside, and one hundred for forcing outside. All these crowns are produced from cuttings put in during March. The cuttings are taken when the crowns are lifted in December, from the largest thong roots cut in six-inch lengths, and tied in bundles of fifty, then laid in soil under a south wall, and planted in their growing quarters during March. The variety is the Old Purple. It has a better constitution than the variety Lilywhite. As a rule, we start cutting in January, and the supply is often kept up until the middle of April."



MR. GEORGE MILEHAM.



PRIZE CHRYSANTHEMUMS AT EMLYN HOUSE.

Proceeding to the main kitchen garden, Mr. Mileham mentioned that a new plantation of Black Currants was being made.

"Do you suffer from mite?" I asked.

"The old variety, Black Grape, was affected by it, but Boskoop Giant is quite free. We have a Gooseberry plantation, and a few Red Currants. As to other small fruit, Raspberries (Superlatives) do well, and we gather Strawberries for six weeks, commencing with Royal Sovereign, in the middle of June, and going on to President, Givon's Late Prolific (a beautiful Strawberry, and a free cropper), and Waterloo."

"You have Pears on standards and bush trees?"

"Yes, we made an experiment with standard Pears a few years ago. I cut down several trees, and worked Pitmaston Duchess on to the old stock. We have had good crops since, the Pears weighing over a pound each. I did a similar thing with Apples, and beheaded Braddick's Nonpareil, working Allington Pippin on to them, with splendid results. The bush Pears are Thompson's, Williams's Bon Chrétien, Duchesse d'Angouleme, Beurré Hardy, and Fondante d'Automne (a very nice Pear of good flavour, but it does not keep long).

"There is a fair quantity of Plum trees on the walls," continued Mr. Mileham, "but not many standards. I am getting a few young trees of that most useful Plum, Victoria, which must be grown as standards to get a heavy crop. The Peaches on the walls are Alexandra Noblesse, Crimson Galande, Dymond, Early Victoria, and Royal George. We protect these when in flower in winter, against frost with tiffany, and can always rely upon a crop."

**Asparagus and Peas.**

"You have a number of beds of Asparagus?"

"Eight, all Connover's Colossal. The date we commence cutting depends upon the weather, but it is generally towards the middle of April, and we continue until the middle of June. Asparagus, Seakale, and Peas are our principal vegetables. We begin Peas with Sutton's Chelsea Gem, and go on to Little Marvel, Ideal, Early

Giant, Prince of Peas (one of the best), Abundance, Centenary, Marrowfat, Best of All, Perpetual, and Selected Gladstone. This year we started picking Peas on June 10th, finishing rather early in September."

Rose arches are a feature of the kitchen garden, while along the borders are clumps of Lavender, and in it many varieties of herbaceous plants and annuals.

"Which of the climbers thrive most among the Roses?"

"Crimson Rambler, Lady Gay, Dorothy Perkins, Queen Alexandra, Psyche, and the old Provence Rose, which is a beautiful shade of pink, and very fragrant. Phlox, Pæonies, Gaillardias, Alyssums, Iris in variety, Funkias, and Hollyhocks are prominent in the border. If Hollyhocks are grown as seedlings annually, and transplanted for flowering, it is easier to ward off the disease than if the plants are allowed to remain in the same place. For edging, we use double and single Geums, Mrs. Sinkins Pinks, and we dot the border with dwarf Antirrhinums—Cloth of Gold, White Queen, and Scarlet King, filling in spaces with annuals like Asters, Phlox Drummondi, Clarkias, Godetias, the long-spurred lovely Aquilegias, and Pentstemons (Forbes' varieties). By this plan, a constant supply of blooms is secured for the maximum period. Now we come to the lawn and the flower garden."

THE FRONT ENTRANCE, EMLYN HOUSE, LEATHERHEAD.

### Terrace Decoration.

"The house itself, I notice, has creepers on it?"

"Nine and ten years ago we put in cuttings of Jasminum revolutum (the yellow), and they have since flowered very freely. Wistaria sinensis runs half-way across the house, and a few old Roses, such as Reve d'Or and William Allen Richardson, give a quantity of blooms in the season. The verandah is covered with Clematis montana, and there are four pots containing specimen Agapanthus on the terrace. We put them out in the spring, and they go on flowering for a long time. I am not in favour of flowering them twice in one year—it weakens the bulbs. During summer, five rustic vases, two feet through, are put out on the terrace, planted with Fuchsias and varieties of Geraniums, edged with blue and white Campanulas, and hanging Ivy-leaf Geraniums, chiefly Madame Crousse. The border under the house almost entirely consisted of Paul Crampel Geraniums, but it is now planted with Narcissus in variety, edged with Chionodoxa Luciliæ. The varieties of Narcissus include Sir Watkin, bicolor grandis, Trumpet spurius, Leedsi, Sulphur Phœnix, Burbidgei, Emperor, Princeps, Incomparable, Cynosure, and ornatus alba plena."

Strolling about the walks, Mr. Mileham mentioned the contents of a few of the beds.

"Here," he said, "is one with Cloth of Gold Wallflowers, Myosotis Blue Gem (a very nice variety) and M. dissitiflora, edged with double Arabis, dotted with yellow Crocuses and Tulips. Another is similar, except that the Wallflowers are Sutton's dwarf Red Brown Bedder. In other beds are the last-named Wallflower, dotted with Tulips (Crimson King), and Myosotis dissitiflora, edged with white Daisies and yellow Crocuses."

"What is the feature of the plant house we are entering?"

"Just now, Begonias Gloire de Lorraine and Turnford Hall, which are used for decorating the house only. We grow from four to five dozen in pots, just enough to make a nice display. Then there are from six to seven dozen of Primula sinensis alba plena, Peach Blossom, White Lady, and Lord Beaconsfield."

### How to Grow Bouvardias.

"Also a number of Bouvardias?"

"About three dozen. They have been in flower for a couple of months. Bouvardias are rather difficult to cultivate, and need special treatment. Equal parts of peaty loam and leaf-mould should be used in potting. The potting should be fairly firm, and the plants should be flowered in a temperature of from fifty-five to sixty degrees. With this treatment, and not pinching after the last week in June, plenty of blooms can be secured."

Passing along the side wall leading to a summer-house, planted with Walnut trees and Limes, we came to frames containing Calceolarias (chiefly Sutton's strain), Freesias refracta alba, and Cyclamen—Sutton's Giant strain, White Butterfly, and Salmon Queen.

"You have Primulas of the obconica section, too?"

"Yes, we grow them for the flowers, and do not have the plants in the house. I like the flowers, but not the foliage. I crossed a Primula obconica with megasefolia, which got an award of merit from the Royal Horticultural Society five years ago. The flowers are almost as large as a five-shilling piece, and the plants bloom nearly all the year round."

### The Chrysanthemums.

"Of course, you raise a great number of seedling Chrysanthemums?"

"This year, for instance, I raised two hundred and thirty, and from that number I have selected fifty really good plants for next year's growing. In the house where we now are there are a good many seedlings. Among the Chrysanthemums in flower are Lady Henderson (bronzy-red), Valerie Greenham (pink), and Duchess of Sutherland (yellow). One of this year's seedlings is red and old gold, Norman Davis being the seed-bearing plant."

"How many Chrysanthemums do you grow altogether?"

"About three hundred—Japanese, Incurved, and bush, half being named and unnamed seedlings. In this house, where Vines (Hamburgh, Gros Colmar, and Alicante) are grown, the Chrysanthemums in flower include Bessie Godfrey (yellow), F. S. Vallis (yellow), Mrs. George Mileham (pink), Reginald Vallis (purple shade), F. G. Oliver (pink), Mafeking Hero (pink), George Terry (red on yellow ground), Lady Talbot (pale canary-yellow), E. J. Brooks (almost crimson in the centre, with a silvery reverse), Mrs. R. Hooper Pearson (bronze and yellow), Miriam Hankey (shell-pink), and Mrs. T. Dalton (crimson, with old gold reverse). Of the seedlings, there is one pink, which I think will come right next year, and a dark pink (almost red), one quite crimson, a crimson almost self-coloured, and a bronzy-yellow (from Knox), which seems rather promising. But the majority of our best Chrysanthemums are in the other house."

Mr. Mileham spoke truly. The house which we next entered contained a magnificent collection of some two hundred plants, with more or less splendid blooms, and I asked the names of some of the flowers which I admired most.

"Taking the Japanese first, there is Walter Jinks (a bright satiny-mauve, with a brighter shade of reverse), Mr. R. Laxton (pure crimson), Algernon Davis (yellow, shaded rusty bronze), Mrs. F. W. Vallis (crimson, gold reverse), Magnificent (bright crimson, reverse of petal old gold), and Mrs. A. T. Miller (pure white), one of the best in cultivation."

"That is one of your own raising?"

"Yes, it was raised here, and also Ernest Mileham (yellow, with petals lined with red), and W. Beadle (violet-crimson). Other Japanese varieties in flower are Norman Davis (crimson), Leigh Park Wonder (crimson with buff reverse), and Miss Hickling (pure white)."

"What was the name of the seedling which you exhibited before the National Chrysanthemum Floral Committee this month?"

"Beacham Keeling (old gold, red inside of petal). I exhibited three blooms of this one variety, which I think will be very fine. But now you must look at some of the Incurves, of which we only grow about three dozen plants, and many of them have ceased blooming for the season. Those still in flower are chiefly Buttercup (bright yellow), Embleme Poitevine (pale shade of yellow), Mr. G. Denyer (light mauve), C. H. Curtis (canary-yellow), Godfrey's Eclipse (bright yellow), Maurice Sargent (white, shaded delicate mauve), W. Pascoe (mauve), William Higgs (bright bronze, and bright old gold reverse), J. W. Fuller (pale yellow), W. Biddle (bronze), Mary Phillips (straw shade to bronze), Ladywell (mauve-pink), Lady Isabel (pink), Mr. F. Ashworth (bronze), Amber Beauty (bright bronze), and Marjorie Shield (flesh-pink)."

### Japanese Seedlings.

"Now you might tell me about some of your Japanese seedlings recently raised?"

"From seeds sown on February 11th, 1907, with Reginald Vallis as parent plant, I have blooms after the style of Bessie Godfrey, only larger. Another, sown at the same time, is

light crimson, it was grown out of doors in the open ground, and potted-up the beginning of November, the blooms showing colour before it was lifted. A number of the new seedlings are from Norman Davis. One is amaranth; a second bright red; a third pink; a fourth bright yellow; a fifth pure white; a sixth chestnut-red, tipped with old gold; a seventh crimson and bright old gold, with broad petals and good bloom; an eighth crimson self; a ninth amber shaded orange; and a tenth crimson-amaranth. Then I had another seedling from Reginald Vallis, one of the brightest crimson, and a red and yellow from an unnamed from the variety Norman Davis. My plan is to pick out the varieties which I consider the best variety. Most of the seedlings have been raised for crossing."

"Which of the bush varieties do you specially recommend for cultivation?"

"Some of those you see still in flower are exceptionally good, including Ryecroft Scarlet, Source d'Or (orange), Marie Stuart (flesh-pink), Niveus (white), Evelyn Archer (bright pink), Hay Greenfield (light crimson), and a seedling from Knox (bright yellow, very free flowering on a stiff stem). The only two single varieties the Ladysmith (bright pink) and Miss Crissy (chocolate-red with golden centre)."

"What number of new Japanese have you raised since 1896?"

"Twenty-two, and in succession, A. G. Miller, Vicar of Leatherhead, Mrs. G. Mileham, Mrs. F. Greenfield, Miss Dorothy Oliver, Miss Elsie Miller, Mrs. A. T. Miller, Miss Olive Miller, F G. Oliver, G. Mileham, Emily Mileham, Arthur Mileham, Frank Greenfield, Mrs. Grace Miller, Ernest Mileham, J. R. Mileham, W. Beadle, George Terry, Evelyn Archer, Mr. R. W. Every, F. W. Lever, and George Mileham 1908."

"When did you raise G. Mileham?"

"It was certificated by the National Chrysanthemum Society in 1900, and is recognised as the first of the ruby crimsons. George Mileham 1908 is to be sent out in the coming spring. It is a large Japanese Incurved, yellow, with broad petals of great substance, and I consider it one of the best. F. W. Lever is also to be sent out in the spring. It is pure white, with large, drooping florets and a cream centre when opening, changing to pure white."

"I suppose you attach considerable importance to the question of foliage, which, I notice, in your plants is remarkably clear?"

"It is absolutely essential that foliage should be clean and free from rust, and this can only be secured by means of proper ventilation."

**Experiences in Hybridising and Showing.**

"It would be interesting to know what made you commence raising seedlings?"

"The explanation is very simple. I spent 2s. 6d. on a packet of seed, from which I raised forty-two seedlings. Of these there was not one worth keeping. I then crossed with a variety named Lady E. Saunders, a pale yellow, and got sixteen plants, which produced A. G. Miller. From A. G. Miller I obtained sixteen more plants, and then went on fertilising. And here I should like to say that my success in raising seedlings has been largely due to the kindness of Mr. Miller, who, with Mrs. Miller, not only takes a great interest in the gardens generally, but has encouraged me to persevere in hybridising Chrysanthemums."

"How long have you been at Emlyn House, Mr. Mileham?"

"Nineteen years. I was previously foreman at Fulbrooks, Old Malden, for four and a half years, and for twelve months I had charge of the gardens. It was then that I got imbued with the showing spirit."

"You must have done a great deal in showing, and won a great many prizes?"

"I have won one hundred and thirty-one firsts, one hundred seconds, and twenty-five thirds for Chrysanthemums, Cyclamen, Primulas (double and single), table plants, and fruit, at various shows, including the Crystal Palace, Leatherhead, Wimbledon, Dorking (where I was awarded the three cups you have seen), and Kingston, where for five years in succession I was first in a group of Chrysanthemums. I have always taken the keenest interest in growing plants, fruit and vegetables, and regard it as mistaken policy to allow one's interest to be absorbed in a single speciality."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 289.—CLIMBERS FOR A HOUSE.

DEAR KATE.—I hope your house is well covered with climbers. Even the most unsightly of buildings can be made to look artistic and beautiful by a judicious selection of climbing plants, and really everyone who can possibly grow them should take care that they add something to the beauty of the land.

A CHARMING ARCH OF CLEMATIS.

How lovely and delightful it is to come upon even a cottage by the wayside wreathed with Roses, Honeysuckle and Jasmine! To a city-dweller such a sight is worth driving miles to see; and even in London, as I told you lately, climbers will grow, if only they are given good soil and attendance, and the right plants are put in. Of course, success depends greatly on due consideration and selection, for creepers which will grow on a south wall don't like to be planted in a north aspect; and *vice-versa*, those which crave for the shade don't appreciate a hot, dry position.

I had better give you a short list of climbers for each aspect, and then you can easily choose those you wish to have. It is not too late to put them in; in fact, the present is a very good time for the more delicate of the plants, which often suffer severely from the severe cold of winter if put in during the autumn. Beginning at the north, there is, of course, Ivy, but I do not recommend it, for it has several serious drawbacks. If you look closely into an Ivy-covered wall, you will be perhaps surprised to find how full of insects the cosy little crannies between the stems are. The thick evergreen leaves are constructed perfectly to throw off the rain from these dwellings, and form a sort of airy thatch, under which snails, slugs, earwigs and other creatures find a dry and comfortable winter resort. But I don't like earwigs, and when they crawl into your bedroom by hundreds, I think they are most objectionable. Then every plant which is fit for the food of snails (and there are few things they won't eat) is eaten up in spring by an army of these creatures, which you can't catch, because they retreat into

# FAMOUS GARDENS :: IN WAR TIME. ::

## HOW THEY ARE BEING MAINTAINED WITH REDUCED STAFFS.

*Interview with Mr. F. W. Miles, of Ware Park, Hertford.*

WARE PARK, the residence of Mr. A. Elkin Cumberbatch, is one of the prettiest and best known estates in mid-Herts. It comprises about two hundred and ten acres, mostly woodland, and lies half-way between Hertford and Ware, both towns of renown. A public footpath, running through the estate, affords a delightful walk, which is well patronised by the inhabitants of these towns. The gardens are about eight acres in extent, three and a half being devoted to pleasure grounds, a similar extent to the walled-in kitchen garden, and an acre or more is outside the walls. They are in charge of Mr. F. W. Miles, who, although still comparatively young in years, is becoming well-known as a contributor to the various gardening journals, as a lecturer, and a judge at the food-producing competitions of the Ware and Hertford Horticultural Societies, and spends the greater part of his spare time in giving instructions to local allotment societies.

He was naturally very busy when I paid him a visit at the end of August, but found time to conduct me round the well-laid-out gardens. The first place to which we turned our steps was the conservatory, where the principal feature was a large batch of Campanula pyramidalis, both the white and blue varieties, most effectively arranged, and still very fine, though getting past its best. Hanging baskets, filled with Blackmore and Langdon's gracefully drooping Begonia Corallina, afforded a good contrast in colour.

FLOWERS FOR WAR-TIME DECORATIONS.

"These plants have been in bloom for several weeks," said Mr. Miles, "and have made a splendid show. The Chimney Campanula is, I think, one of the best things for decoration at any rate, in war time—for it is so easy to grow, and makes no demands on labour. The seed we sowed two years ago (I have another lot coming on for next season), pricked out, and potted on as required; and that is all the trouble they gave. They do not want heat to winter them."

"You have, of course, to be economical of labour?" I suggested.

"Very much so," was the answer; "for although the staff was never large—it formerly consisted of seven men—there are now only three women and one man."

"Do you find women helpful?"

"Yes; they do their work well and conscientiously. They have been here for over fifteen months. Two of them are wives of men who left here to go into the army."

Starting out on to the lawn, we stopped to admire a grand old Chestnut, with a trunk at least twenty-four feet in circumference, and with its long branches touching the ground, thus forming natural supports. Then we turned towards the lawns at the front of the house, where stand some fine old Cedars.

"The Cedars must have been about a century and a half old," said Mr. Miles. "They were well planted, with brick at the bottom for drainage. This we found out last year, when several of them were blown down in the great blizzard. We are not able to keep the lawns as they should be, but we manage to get them mown once a fortnight. It takes us two days to go over them."

ANTIRRHINUMS FOR BEDDING.

Sheltered by the Cedars on three sides is a charming dell, sunk in the lawn, and this was ablaze with many-coloured Antirrhinums, of which there are eight beds, planted in separate colours, including Orange King, Crimson King, Apricot, and Delicate Pink.

"All told, there are six thousand plants," was the reply to my query. "I planted them all out myself. They are going off a little, but I shall cut away the tops, and they will break out afresh. I am a great believer in Antirrhinums, and have had them in these beds ever since I came here, nearly four years ago. They are good for effect at any time, but especially now, for they give a splendid display for little trouble."

"Are they autumn-struck plants?"

"No; they are all spring-sown. They come true from seed, and I am not in favour of autumn propagation. The plants from an autumn sowing certainly come into bloom about ten days earlier, but against that you have the fact that they do not last all the season; while these will be in bloom until frost comes. Then there is the trouble of wintering, which is saved by sowing in spring."

Skirting the edge of the lawn, facing the house, is a narrow border filled with Pentstemons, Asters, Dahlias, and other flowers.

"This border," said Mr. Miles, "has usually been filled with Sutton's Rosy Scarlet Larkspur, which is a revelation of beauty to those who have never tried it. This year it was to have been filled with Potatoes, but this was altered at the last moment, and as there was then no time to get the Larkspurs, we filled it with anything we had ready."

RHODODENDRONS FOR HEAVY CLAY.

Forming a continuation to this border, where it broadens out, is a plantation of Rhododendrons, in forty to fifty of the best named varieties. This plantation is fully a hundred yards long, and three to four yards wide. It is only about two years old, but the shrubs look very healthy, and as though they were thoroughly at home.

"Is it peaty soil here?" I asked.

"The soil is heavy clay, and last winter the water overflowed from the field at the back. And yet all we lost was one plant. The ground is well mulched with old manure in autumn, and during summer we spread the lawn mowings over it. That is all the treatment it gets."

At the end of the lawn was formerly an Italian garden, but this was cleared away some years ago, and the site turfed over. Instead, there are now numerous beds filled with herbaceous perennials, Delphiniums and late-flowering Phloxes being strong features. These, too, comprise most of the best varieties. The Rose garden is also here, and was still well supplied with blooms, though there were many gaps in the beds, due, as Mr. Miles informed me, to last winter's ravages.

"In one bed alone we lost two dozen standards and a dozen dwarfs," he said; "and we shall not be replacing them yet. The Roses are all good modern sorts. Madame Ravary and Lady Battersea do especially well as standards, and planted side by side make a pleasing combination of colour. For pillars we have Gruss an Teplitz, Madame A. Carrière, and Dorothy Perkins and other Wichuraianas. Some of these are on the arches, where also Climbing Caroline Testout is always successful."

MR. F. W. MILES AND THE STAFF AT WARE PARK GARDENS.

From the lawns we passed into a circular wild garden, with a pond in the middle. The site had formerly been left to go really wild, and had become nothing but a mass of nettles and other weeds. These were grubbed up, and the outlines of the place altered. Many choice shrubs and tall Rhododendrons of the ponticum type now surround it; Cotoneasters and other bushes clothe the banks of the pond; and Water Lilies crowd each other on the surface of the water. The lack of labour, however, is clearly indicated by the growth of weeds on the water, the condition of the paths, and the exuberance of the stronger-growing shrubs.

"We have been unable to do anything here for the past eighteen months," said my guide; "and the Fernery which we are now entering has likewise had to be left. I had commenced to build and plant a rockery on one side, but it was not completed, and nothing can be done with it at present. The Brooms have been very fine, and Veronica Traversii sur-

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vived the winter; but some of the rock plants are getting out of hand, and they and the weeds are struggling for the mastery."

In this Fernery I noticed many handsome hardy Ferns, and the Kerria japonica and the Honeysuckles on one side were particularly good. But though the place is now left practically untended, it is evident that, given the requisite labour, it can be made one of the most restful spots in the garden.

In the walled-in kitchen garden, which we next visited, the herbaceous borders, with Apples and Pears behind them, made a very effective picture. In reply to my question, Mr. Miles said:

"We are going to have excellent crops of all fruits except Plums, which are only a partial success. Strawberries were very poor, owing to the drought, which lasted here from the end of April to the end of June."

"You have a good breadth of ground given over to Potatoes," I remarked.

### PRODUCTIVE POTATOES.

"We have a lot more in other parts of the garden, and also an acre outside," was the answer. "This is a bed of Factor, which has not been sprayed."

"It is looking sturdy and promising, and there seems no trace of disease. What other varieties do you find succeed with you?"

"We have several others. Up-to-Date is a good cropper, and keeps well. King Edward VII. is another we like. Then we have Arran Chief, which, you can see, is going to be exceptionally good. We have lifted some, and from one peck of seed got four hundredweight of usable tubers. May Queen was our earliest, and the only one we grow in frames. Great Scot was our second early, and gave us an enormous yield. One root that was dug had fifty-four tubers, forty of which were of table size. I have noticed, not only here, but elsewhere, that King Edward and Factor do better the second year from Scotch seed, and we are saving seed to plant next season.

"You make good use of the ridges between the Celery trenches."

"That is the second crop of Lettuces we are growing there," replied Mr. Miles. "The varieties I prefer are Sutton's Earliest, Favourite, and Supreme, and these come in for succession out of doors from April to the end of October. Supreme is good in hot weather, and very rarely bolts."

Further on, we came to some rows of Scarlet Runner, Prizewinner, a very productive variety, and the only one grown here; and next to them a large plantation of Broccoli. Mr. Miles, in reply to my question, said:

### BROCCOLI ALL THE YEAR ROUND.

"We cut Broccoli practically all the year round. Michaelmas White is the best variety I have ever seen; and to follow this we have Autumn Protecting, Christmas White, Vanguard, Winter White, and Late Queen. We put out three hundred and fifty of each, and plant the late sorts on undug ground, which causes them to make sturdy growth. Then, to follow the Broccoli, we have Cauliflower Purity and Early Giant."

"Do you force many Strawberries?" I asked, as we passed a bed where the runners were being taken off in pots.

"We force only two hundred now, but we used to do five hundred," was the answer. "The variety is Royal Sovereign. Further round we have a lot of Bedford Champion; but this, though a prolific cropper, is not so good in flavour. Our late varieties are Leader and Givon's Late."

"What are your principal Peas?" was my next question, as we halted before some rows, six feet apart, with other vegetables between.

"We make a special point of Peas, and keep up a long succession. Sutton's Pioneer and Hundredfold are our first earlies; Early Giant and King Edward follow them; Selected Duke of Albany and Peerless are the mid-season sorts; Masterpiece and Matchless come in from August on; and Selected Gladstone and Autocrat start in September. These give us Peas from May to the end of October. For the earliest there is nothing to beat Pioneer, which is far better than Little Marvel. It is quite as good a cropper, and the Peas do not get hard. I have tried them together."

Moving on, I noticed a good bed of Brussels Sprouts, Sutton's Exhibition and Matchless; three rows of Ailsa Craig Onion, lifted, and ripening in the sun; and a bed recently sown with Turnip Green Top White, "a variety," said Mr. Miles, "which cannot be beaten for winter work."

We next turned our attention to the walls, on which fruit of various kinds is trained. Cordons of Conference Pears were carrying wonderful crops, but the Plums, Pond's Seedling and Victoria, between which they were planted, could scarcely be called satisfactory. Further round, Brown Turkey Fig was full of fruit. At the back of another wall are Nectarines Pineapple and Elruge, and Peaches Seagull and Crimson Galande.

"These always give good crops," said Mr. Miles. "One of the women has done all the tying-in and disbudding. We have not a great deal of glass," he added, as we prepared to enter the Peach house.

"Some of the trees are carrying very fine crops," I observed.

"From the seven trees we gather eight hundred fruits," he replied. "Some, of course, have already been picked. There are two of Lord Napier Nectarine, and each had over a hundred. It is a very useful variety, but it needs to be slightly shaded in a normal season, or it scorches, and the skin gets tough on the side nearest the sun. Another good variety here is Early Rivers, but it loses flavour if not used at once, and does not keep so well as Lord Napier. Bellegarde Peach has not coloured so well this season, as I could not get to it to tie down the foliage. There are two trees of Early Alfred, and, strange to say, one comes in a few days before the other—probably because the sun gets on a little later, and is off a little earlier."

Coming out, we resumed our walk round the kitchen garden. The first thing to attract my notice was a magnificent Apricot, laden with richly coloured fruits.

### GOOD APRICOTS.

"The variety is Hemskerk," said Mr. Miles, "and it is both prolific and of good flavour. So for that matter, is Moorpark, which is growing next to it; and beyond is one which is not so often grown, Breda. There are other trees of this variety, which I strongly recommend."

"You still have some good Red Currants left," I remarked, halting in front of a large plantation.

"Yes, they are not yet over," was the reply. "Further round, on the north wall, we manage to pick up to October. They hang on for an indefinite time, and come on slowly."

"What is the Black Currant?"

"The variety is Boskoop Giant. To check 'big bud' I prune in late summer, thus giving more air and light to ripen the growths and develop the vigour of the plants. I find this is effective."

"Do you grow many Chrysanthemums?" I asked, seeing a row in pots.

"We do about one hundred and sixty, where formerly we did five hundred. They were potted late, and have had to take their chance; but they will give a few flowers for cutting. We also have, as you see, a couple of rows of Dobbie's Sweet Peas, which are grown for indoor decoration, as are the Roses here.

"And I presume, from the plants here, that Arums are a feature with you?"

"Yes, we like to do them well. In a few days these will be shaken out, and repotted in fresh compost, and we shall fill one house with them."

We had by now approached another greenhouse, and as we entered it, Mr. Miles said:

### A GOOD ALL-ROUND TOMATO.

"Before the war we used to have a thousand Carnations here, one half Malmaisons and the other Perpetuals."

"Now you are using it for Tomatoes," I observed; "and are getting splendid trusses of handsome fruit."

"The variety," he replied, "is Princess of Wales. It is, as you say, a splendid crop, and it is exceptionally rich in flavour. We grow it both indoors and out, and for winter and summer. It matures early, and is the best all-round variety I have come across."

In the next house, Cucumber Sutton's Delicacy and Melons Hero of Lockinge and Superlative were doing well. In another house, Heliotrope Lord Roberts occupies almost the entire back wall. It is in a 24-in. pot, and the roots have made their way through the drainage hole into the soil of the border. From the bottom to the top it was covered with its deliciously fragrant flowers, and I was informed that it gives bloom all the year round.

Passing out, we entered another division of the kitchen garden, where Rose arches of Gruss an Teplitz and Madame Alfred Carrière made a fine sight, though they were perhaps eclipsed by a pergola of Dorothy Perkins, on a series of about forty arches, with Michaelmas Daisies between them. Here, too, are some well-grown espalier Apples. I asked Mr. Miles what he considered his best varieties, and he replied:

"There are so many it is rather difficult to say, but Benoni is a very good dessert kind, which comes in at the end of August. Worcester Pearmain and Lady Sudeley also do well as espaliers, and so do King of Tomkins, County and Cox's Pomona. Cox's Orange Pippin is very promising this year, both on the cordon and espaliers; while as bushes we are going to have wonderful crops of Lord Derby, Allington, and Ribstons. There is an old espalier of Lord Suffield, but it is a variety that should not be grown in this form, and the crops are not so good. Lord Burghley and Claygate Pearmain are two good late dessert sorts."

Several rows of Carrot New Red Intermediate and Beet Market Favourite were looking attractive, and then Mr. Miles called my attention to a bed of Canadian Wonder Beans.

"This was sown in a rather lazy way, perhaps; but it saved labour. There were two rows of Peas here, and when they were over we simply pulled up the haulm and dropped the Bean seeds in the holes."

### CORDON GOOSEBERRIES.

Another feature worthy of remark is the four rows, each thirty yards long, of cordon Gooseberries. There are many varieties, but the finest, Mr. Miles said, is Crown Bob

There were many other features of interest, but we now made our way to the garden outside the walls. Here are grown Seakale, Rhubarb, Horseradish, and Artichokes, and more Potatoes. Then, pointing to one small bed, I asked what it contained.

"That," was the reply, "is a bed of Chinese Artichokes, which give a pleasant change from November to March—in fact, they are a fine table delicacy. They require a light and well-drained soil, and are then quite hardy, and come up year after year."

There had been so much to see in the gardens that no time was left to inspect the shrubbery, which contains over three hundred varieties; and only a cursory glance could be given to the specimen trees in the grounds.

Mr. Miles commenced his gardening career at Kelston Park, Bath. Following this, he was for two years at Cammerton Court, Radstock; then for a like period at Latimer House, Chesham; one year at Vale Royal Abbey; and for eighteen months he was decorator at Stubbins House, Maidenhead. Five years ago he came as second to Ware Park, and became head gardener three and a half years ago.

W. J. CHITTENDEN.

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Next week: The gardens of Hever Castle, Kent, the residence of Lord Astor.

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outer covering, has a cup-like cover in which Rice is placed, with a little water; the Ginseng with water in the inner vessel, a cover placed over all and the apparatus put on the fire. When the Rice in the cover is sufficiently cooked, the medicine is ready, and is then eaten by the patient, who drinks the Ginseng tea at the same time." A Shanghai Ginseng merchant who, it is said, gave his whole attention to the sale of this article, is described as having kept his stock in strongly bound boxes. When any one wished to see his stock "he deliberately fetched his keys and calling an attendant to shut the door, so that neither strangers from the outer shop nor damp air might enter his clean and beautifully furnished sanctum, which was also thoroughly dry, proceeded slowly to unlock the boxes. Opening the outer box, he removed several paper parcels, which appeared to fill the box, but under them was a second box (or perhaps two small boxes), which when taken out showed the bottom of the large box, and all the intervening space occupied with more parcels. 'These parcels,' he said, 'contain quick-lime for the purpose of absorbing any moisture, and keeping the boxes quite dry;' the lime being packed in paper for the sake of cleanliness. The smaller box, which held the Ginseng, was lined with thin sheet-lead; the Ginseng, further enclosed in silk wrappers, was kept in little silken covered boxes. At last after opening many receptacles, the actual medicine was displayed. each root sewn with silk to its silken wrapper. Taking up a piece, and requesting his visitor not to breathe upon it, nor handle it, he would dilate upon the many merits of the drug, and the numerous cures it had effected. The cover of the root, according to its value, was silk, either embroidered or plain, cotton cloth or paper. Some of the root was worth not more than 6 to 12 dollars an ounce; other portions rose in the price to the most expensive, which was of the enormous value of 300, and even 400 dollars an ounce. This latter the merchant prizes of course very highly, and allowed only a glance at it, as he said 'it might be injured by exposure to the air.' The inspection finished, each root was carefully returned to its place in the box, and this to its position on the lime; the parcels of the latter were readjusted, and the outer box locked."

So great was the demand for Ginseng at one time amongst the Chinese for their home consumption, that the Americans endeavoured to establish a trade with China in the root of the North American plant—Panax quinquefolium. The Chinese, however, did not value it as their own product, and it was consequently abandoned. At the present time the true Ginseng is not thought so highly of as formerly; but so late as 1859 a scientific expedition was organised in St. Petersburg to explore and report on the Mantchou territory and the frontiers of Corea, and to examine specially the Ginseng and the Chinese plantations, with a view of establishing plantations in Russia for the purpose of trading with China. *John R. Jackson, Museum, Kew.*

## BRITISH GARDENERS.—XXI.

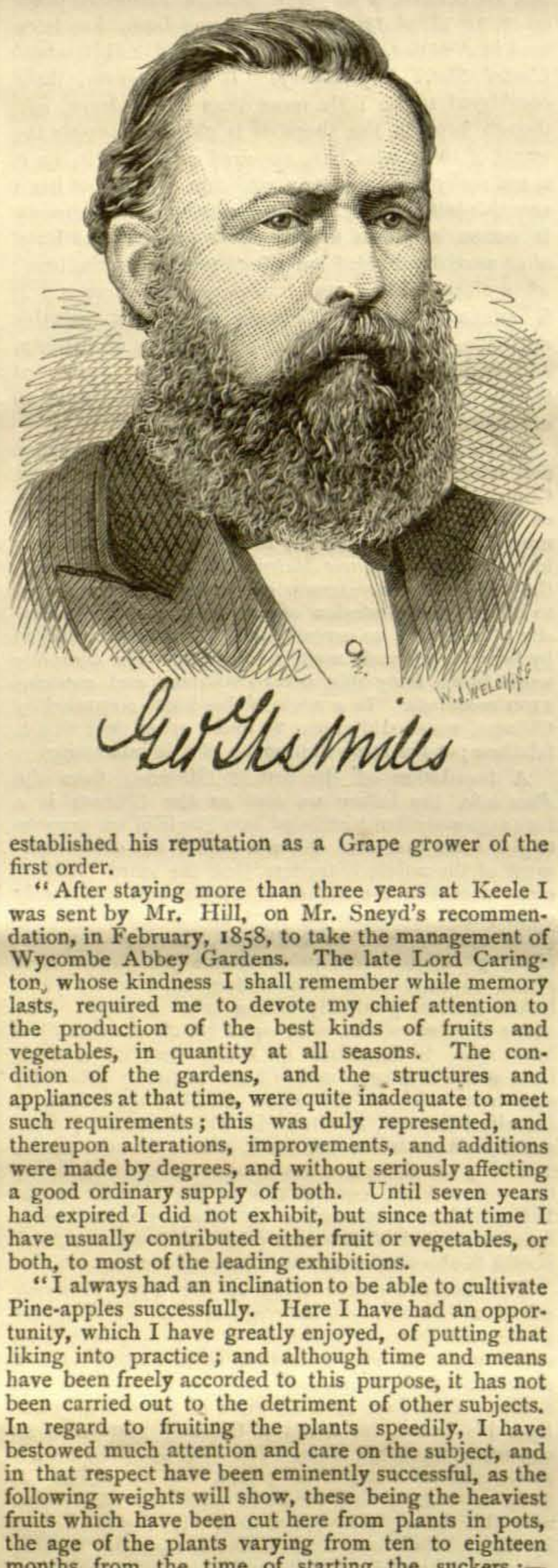
### GEORGE THOMAS MILES.

WE have to thank Mr. Miles, whose portrait is subjoined, for the accompanying interesting sketch of his career as a gardener:—

"At an early period in life, even in my school days, I had a strong propensity for gardening, which was made manifest by my seeking to be indulged with a small plot of ground in which to form a garden for myself: this in conjunction with a fine old Sweetwater Vine, which rambled over the exterior of my home, on a part of which I was allowed to operate, and where I first ventured at thinning out bunches of Grapes. Under these circumstances, unaided by professional advice or assistance, I commenced my horticultural career, being stimulated in it by an innate passion for flowers, which latter I frequently purchased out of small means, and the love of which continues with force unabated.

"On leaving school my ambition remained fixed on gardening as an occupation; and shortly afterwards I entered the gardens of the late Honourable Henry Ashley, at Clewer, Berkshire, in which parish I was born on January 10, 1831. I remained in this situation nearly four years, under Mr. Thomas Roake as head gardener; he was somewhat celebrated among florists, and at the time in question was specially noted for Hollyhocks, hundreds of seedlings of which were raised there annually, and from among these his named varieties were selected.

"I left Clewer to go as an apprentice for two years to Mr. Thomas Perkins, who was then head gardener to the late Viscount Combermere, Combermere Abbey, Cheshire. Shortly after the expiration of my term I was promoted to the position of foreman, which I held while I stayed there—another eighteen months, when I became desirous of increasing my knowledge and experience elsewhere, in which matter I was much assisted by Mr. Perkins. The gardens of Ralph Sneyd, Esq., at Keele Hall, Staffordshire, which at that time were rapidly rising into importance under the able management of their present superintendent, Mr. William Hill, was fixed upon as a suitable remove; and through Mr. Perkins' kind intervention I was admitted there at once, and was placed in the outdoor department—a position which every young gardener should occupy for a season at least. I had certainly made a pecuniary sacrifice by my move, but this I never regretted. The loss of a few shillings per week at such a period is worth hazarding for the sake of gaining practical lessons, and I refer to it here by way of encouragement to those whose aspirations are such as mine were at the time referred to. At Keele Hall I acquired considerable practical experience in planting and pruning hardy trees and shrubs, and transplanting large ones. Amongst the latter, Hollies form an important feature. Formerly a portion of these were subjected to knife pruning annually, and its beneficial effects are now unmistakably indicated by the magnificent pyramidal specimens which abound in the pleasure grounds, such as I may venture to affirm will vie with any others in the kingdom. After two seasons' experience in this way I became foreman, and took charge of the plant department, which was extensive, both as regards plants and bedding subjects, many thousands of the latter being required annually. At this time Keele Hall gardens were justly celebrated for the remarkable examples of fine Grapes which Mr. Hill was in the habit of exhibiting, and which deservedly




established his reputation as a Grape grower of the first order.

"After staying more than three years at Keele I was sent by Mr. Hill, on Mr. Sneyd's recommendation, in February, 1858, to take the management of Wycombe Abbey Gardens. The late Lord Carington, whose kindness I shall remember while memory lasts, required me to devote my chief attention to the production of the best kinds of fruits and vegetables, in quantity at all seasons. The condition of the gardens, and the structures and appliances at that time, were quite inadequate to meet such requirements; this was duly represented, and thereupon alterations, improvements, and additions were made by degrees, and without seriously affecting a good ordinary supply of both. Until seven years had expired I did not exhibit, but since that time I have usually contributed either fruit or vegetables, or both, to most of the leading exhibitions.

"I always had an inclination to be able to cultivate Pine-apples successfully. Here I have had an opportunity, which I have greatly enjoyed, of putting that liking into practice; and although time and means have been freely accorded to this purpose, it has not been carried out to the detriment of other subjects. In regard to fruiting the plants speedily, I have bestowed much attention and care on the subject, and in that respect have been eminently successful, as the following weights will show, these being the heaviest fruits which have been cut here from plants in pots, the age of the plants varying from ten to eighteen months from the time of starting the suckers:—Smooth Cayenne, 9½ lb.; Prickly Cayenne, 8½ lb.; Enville, 11¼ lb.; Black Prince, 10 lb.; Queen, 6¼ lb.; Providence, 10½ lb. In recording these weights, I crave the indulgence of my readers for so fully alluding to this favourite topic, which is not done boastfully, but in order to bear witness to the fact that to cultivate these choice fruits successfully, it should be done expeditiously. I owe much to my noble employer, the present Lord Carington, and his family for the encouragement I have always experienced, and for the kind consideration which they have shown to me during a period of seventeen years."

Mr. Miles' views on the culture of the Pine-apple, and on vegetable growing, will be found embodied in our Calendarial department of the last year or two; and his productions on the exhibition table have abundantly shown that he can successfully carry out what he teaches.

## A TERRACED GARDEN.

FROM time to time you give in your paper ground plans and descriptions of some one or other of the many splendid public and private gardens which are amongst the attractions for which our island is celebrated, but of all your numerous readers there are but few who can do more than picture to themselves the aspect they must present when in their beauty; to copy them is far beyond their resources, and thinking that an example on a smaller scale and within reach of the means of a larger number might be of interest, I venture to send you a ground plan of my own (fig. 15). It has some features not quite in the usual way, and has received the approval of many friends. It is a terraced garden, immediately in front of the residence, and only divided from it by a carriage road 10 feet wide. A few steps lead to a level space, in which the flower-beds are cut; the centre panel is divided by Box edgings and surrounded by a gravel path, and the twelve divisions are planted in alternate colours—in spring with yellow and blue Pansies, and in summer with white-leaved Pelargoniums (usually Queen of Queen) and Iresine Lindeni—the centre of the panel being occupied in summer by a variegated Yucca, replaced in autumn by a Yucca gloriosa. The borders, Nos. 2, 3, 4, 5, are in autumn planted with centre of blue Pansies, and then in lines following the contour of the beds with white Daisies, yellow Feverfew, white Daisies, purple Aubrietia grandiflora, and red Daisies, dotted with a few Hyacinths and Tulips: these have for six weeks presented a soft rich effect; the white Daisies make the surface sparkle, and the edging of red Daisies adds richness to the pale purple of the Aubrietia. Beds Nos. 6 and 7 have a wire basket, a variegated Honeysuckle being trained on the handle. It has for spring filling a centre of Silene ruberrima, a circle of Myosotis dissitiflora, and an edging of white Daisies: the effect is very satisfactory.

The long border, No. 8, has an archway in the centre, with trained Roses and Negundo variegata, and a path under it leads to a croquet lawn. The border is planted with Roses filled up in spring with doubleyellow Wallflowers and Blue Perfection Pansies, in summer with Ten-week Stocks and Gladioli. The garden is on a western slope of the Cotswolds (consequently on the oolite), and commands a pleasant view of wooded vales and hill-sides, with many cottages scattered over them. One drawback to these charming spring gardens is that they have to be exterminated to make room for summer planting before their beauty has passed, but they are far less expensive than filling the beds with bulbs, which, whilst they give a very bright show for a time, prove so evanescent. The cost of mine for seed does not exceed a shilling, but involves some labour in planting and transplanting and enriching the beds to enable them to carry two crops of blossoms each year.

I can strongly recommend them to such of my fellow gardeners as are favoured with a sheltered garden with dry subsoil. *C. P.*

## PLANT GOSSIP.

THE fine old African Lily, AGAPANTHUS UMBELLATUS, is one of those plants whose cultivation appears to be in danger of falling into neglect. It seems almost incredible that such a fine decorative agent should suffer eclipse, but the changing fashions in the aspects of gardening are producing this result t o some extent. It is equally valuable for conservatory or outdoor decoration during the summer, and as its bright blue flowers can be had in profusion from July till quite late in the summer, it is enabled to discharge a prolonged floral service. It is a plant that may be said to revel in an abundance of light and air, hence its adaptability for occupying pedestals and similar positions. We have seen large examples in pots used for standing on the balustrades of stone steps, and on the side piers on either side of the bottom step. Two examples, in particular, are remarkable for their great size and prolificacy of bloom. They are repotted once in every three years, and

MR. F. MOORE, who was for several years in our employ as assistant-editor, is seeking some post in which his extensive knowledge of horticulture in all its branches, and of estate management, would be available. Mr. MOORE's address is 18, Devonshire Place, Brighton.

MR. BEGG.—A well-merited compliment has been paid to this gentleman on the completion of his fiftieth year of service with Sir ROBERT JARDINE, Bart. The notice reaches us as this page is going through the press; we shall allude to it more fully in our next issue.

## Obituary.

GEORGE THOMAS MILES.—It is with great regret we have to record the death of Mr. G. T. Miles, who for the past forty-seven years has been gardener to Lord Carrington and his predecessor at Wycombe Abbey, and Daw's Hill Lodge, during part of which period he has also been steward to his lordship. Mr. Miles, who would have been seventy-four years of age on January 10 next, retired to bed on Wednesday, November 16, apparently in his usual health, but died at 7 o'clock on the following morning. He was one of the most experienced and capable of gardeners, and was greatly esteemed by all who had dealings with him. More than a quarter of a century ago, Mr. Miles contributed weekly notes to this journal on Pineapple and general fruit cultivation, and upon vegetable culture. At that time he exhibited vegetables as successfully as any grower in this country. In 1875 there appeared in these pages a portrait and an account of his earlier life, contributed by Mr. Miles himself, and we cannot do better than reproduce his own words:

"At an early period in life, even in my school days, I had a strong propensity for gardening, which was made manifest by my seeking to be indulged with a small plot of ground in which to form a garden for myself; this in conjunction with a fine old Sweetwater Vine, which rambled over the exterior of my home, on a part of which I was allowed to operate, and where I first ventured at thinning out bunches of Grapes. Under these circumstances, unaided by professional advice or assistance, I commenced my horticultural career, being stimulated in it by an innate passion for flowers, which latter I frequently purchased out of small means, and the love of which continues with force unabated.

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Since 1875, Mr. Miles has continued to serve Lord Carrington, and has not only merited but has enjoyed his lordship's confidence and friendship. He had sympathy with Lord Carrington's work in establishing small holdings and allotments, and in all respects earned the approval of his employer. Some of our readers who were present at the Annual Festival of the Royal Gardeners' Orphan Fund last year will remember in what appreciative terms his lordship then alluded to his gardener. As was recorded in our issue for May 9, 1903, Lord Carrington then said, Mr. Miles "had been intimately connected with his family for nearly fifty years. Lady Carrington, himself, and children regarded him as an old and faithful friend, whom he was pleased to see present at that table in good health."

Mr. Miles was a member of the Fruit and Vegetable Committee of the Royal Horticultural Society, and was present at the Committee's meeting in connection with the recent fruit show, when he appeared to be in first-rate health. Deceased leaves two sons and three daughters.

The attendance at the funeral, which took place on Monday, was probably the most numerous ever known at High Wycombe. There were present some hundreds of people, including the Earl and Countess Carrington, the Mayor of High Wycombe, representatives of the Horticultural Society, and many well-known members of the horticultural world, several of Earl Carrington's tenants, and a number of townsmen.

Mr. George Miles, who succeeds his father, has been acting as his assistant at High Wycombe for upwards of twenty years.

LEO GRINDON.—We regret to hear of the death of another old correspondent. Mr. Grindon was an enthusiastic botanist, and took great delight in stimulating others to like enthusiasm. His field lectures and visits to museums were specially valuable. In addition to his work as an oral teacher in the Manchester School of Medicine and elsewhere, Mr. Grindon was a prolific writer. His books on the "Scripture Botany" and the "Shakspeare Flora," which appeared originally in these columns, are well known. His work on "British and Garden Botany" cost him much labour, and is very useful to students. His Orchid catalogue, under the title of the *Fairfield Orchids*, was much superior to the ordinary commercial lists. Mr. Grindon was also the author of a work on "Manchester Banks and Bankers." He died on the 20th inst., in his eighty-seventh year.

# SOCIETIES.

## THE ROYAL HORTICULTURAL

### Scientific Committee.

NOVEMBER 15.—*Present:* Dr. M. T. Masters, in the chair; Messrs. Massee, Chittenden, Saunders, Holmes, and Sutton; Drs. M. C. Cooke and Rendle; Prof. Boulger; Revs. W. Wilks and G. Henslow (Hon. Sec.). Visitor, Mr. Webb.

*Mignonette attacked by Eelworms.*—Mr. SAUNDERS reported as follows upon plants sent to the last meeting from Hillingdon:—"The plants were badly attacked. The best thing to do is to burn all infected plants, and the soil they are growing in. Every care should be taken that none of the soil should get mixed with soil that is not infected, either on the potting-bench or elsewhere; and the pots in which the plants were growing should be baked or thoroughly boiled before being used again."

*Palm-scale.*—Mr. SAUNDERS reports upon Palm-leaves attacked by scale:—"The specimens sent are the scale insects, Aspidiotus hederæ, a very common insect on various plants in stove and greenhouses. The best means of destroying them is to wash them off with a sponge and soft-soap and water or a solution of paraffin emulsion. A detailed description is given in *Newstead's Coccidæ*. The eggs of these insects are laid beneath the scale of the female, and when the young are hatched they spread themselves over the plants until they find a suitable position, they then thrust their proboscis into the leaf and remain in that place for the rest of their lives."

*Roots attacked by various pests.*—With reference to some Daisies, Mr. SAUNDERS observed that "it is a good way to destroy various pests which are attacking the roots of a plant, when you lift it, to thoroughly drench the soil with boiling water. This destroys any of the pests which may be left in the ground. The soil from the roots of the lifted plant should be removed as far as possible before it be replanted and the roots washed." A vote of thanks was accorded to Mr. Saunders for his communications.

*Puccinia gentianæ* (Strauss).—The three following communications were received from Dr. PLOWRIGHT: "On Gentiana Amarella on the Chalk Downs near Salisbury (Mr. E. J. Tatum, Sept. 19, 1904). This Puccinia has not, I believe, been previously recorded as the host plant in England. It grew far away from cultivation, and can hardly have been introduced as the specimens found some years ago in Kew Gardens probably were. The Puccinia was found in the following month (October, 1904) as the same host plant, about 17 miles distant from the first locality."

*Rhizoctinia violacea* (Tul).—"This disease is not at all a common one in this part of East Anglia, according to my experience. This year, however, it has attacked certain crops of Carrots. The specimen sent shows how the violet mycelium has eaten into the middle of the Carrot. It has also attacked the apex

on the Quince; indeed, to get the best results it should be double grafted and given a warm wall, and then the fruit will be of splendid quality. It is not suitable for heavy clay soils unless specially prepared, as grown thus it cracks badly. Given good culture, however, the tree is quite hardy, and the return is excellent; indeed, with us it fruits when others fail. This is one of the best of the November Pears, and though not large it is a nice size for dessert, and is always asked for by those who like quality and do not care for mere size.

O. T.

# BOOKS.

**Some English Gardens.***—Mr. Elgood's delightful garden pictures are so well known that it is almost superfluous to dwell on their merit. The reason of his success, apart from, and yet in closest connexion with, his artistic ability is not far to seek, and is found in his own true love of a garden and intimate sympathy with the varied beauties of plant life. In this handsome folio volume—on whose production publisher, printer, and reproducer may alike be congratulated—fifty garden pictures are gathered together from places throughout the length and breadth of the British Isles. There are scenes in the gardens of some of the lordly palaces of the English Renaissance, such as Hardwick and Montacute; in those that have been made in later days around places dating from a remoter antiquity—some of them ancient fortresses—Berkeley, Crathes, Kellie, Penshurst, and Compton Wynyates; of ancient manors, beautiful with the timber structure and ornament of Tudor days, such as Speke and Great Tangley. From these, whose buildings dominate the garden design, to the modest flower border of the labourer's cottage, the same story is told throughout; of that delight in the beauty of flowers that has so strong a hold of English hearts, and of the many pictures the gardens offer to the eye and mind of the sympathetic artist. The reproductions, by the three-colour process, though not all equally successful, are a good example of the great progress that has been made of late in this remarkable development of the photographic art. Specially successful plates are "The Pergola, Great Tangley," page 8; "The Pool, Bramham," page 16; "The Yew Alley, Rockingham," page 34; "The Yew Walk, Crathes," page 42; "Ramscliffe: Orange Lilies and Monkshood," page 58; "The Yew Arbour, Lyde," page 107; "Phlox and Daisy," page 112; and "Michaelmas Daisies," page 122. The letterpress, by Miss Jekyll, consists not only of descriptive notes on the actual places, though the description is sufficient to present to the receptive reader a fairly complete idea of the environment of the actual subject. It contains also a good deal of critical observation, and draws attention to various matters that are of special interest and importance in relation to the more thoughtful, and therefore more effective, aspects of modern gardening.

* "Some English Gardens." After drawings by George S. Elgood, R.I., with notes by G. Jekyll. Longmans, Green, and Co., London, 1904. Price £2 2s.

# OBITUARY.

## GEORGE THOMAS MILES.

THE sudden death of Mr. Miles on the 17th inst. will come as a painful surprise to his many gardening and other friends throughout the country. It is only a few weeks since we had the pleasure of meeting him at the new hall of the Royal Horticultural Society, when he appeared to be in the enjoyment of his usual health and good spirits. Those who can look back some twenty-five to thirty-five years ago will remember that Mr. Miles formed one of a band of gardeners as eminent in their day as any before or since. His contemporaries included Coleman of Eastnor Castle, Thomson of Drumlanrig (both happily still with us), Thomson of Clovenfords, Speed of Chatsworth, Baines of Southgate, Barnes of Bicton, Henderson of Cole Orton, Frost of Dropmore, Tillery of Welbeck, Gilbert of Burghley, Ingram of Belvoir, and many others. At that time the greatest encouragement and impetus to horticultural exhibiting was given, and it is not too much to say that the shows of those days have rarely, if ever, been surpassed; Mr. Miles was then very successful as a grower and exhibitor of fruit and vegetables.

One of his great hobbies was Pine-apple growing, of which he was a master. He was one of the first to explode the belief that prevailed among gardeners of that day that a good Pine-apple could not be grown and fruited from the sucker in less time than from two and a half to three years. He showed how Charlotte Rothschild Pine (9lb. in weight), and other varieties in proportion, could be fruited in from ten to eighteen months. He was the raiser of an excellent winter fruiting variety named Lord Carrington.

Mr. Miles was born in the village of Clewer, in Berkshire, where he started his gardening career in the gardens of the Hon. Henry Ashley. He remained there four years, afterwards spending three and a half years in the gardens of Combermere Abbey, Cheshire. His next move was to Keele Hall, which at that time had a garden of great renown. Here he remained as journeyman

THE LATE MR. G. T. MILES.

and foreman for more than three years, when he was recommended by Mr. Hill as gardener to the then Earl of Carrington at Wycombe Abbey; this was in February, 1858. Those who have had the pleasure of Mr. Miles's friendship know only too well that he was never tired of speaking of the great kindness and encouragement he always received from the late and present Earl and Lady Carrington, whose confidence and friendship as gardener (and latterly as agent) he has enjoyed for the long period of forty-six years. Mr. Miles has left behind a name pregnant with good example in industry, faithfulness, and perseverance. He died in the seventy-fourth year of his age. The sincere condolence and sympathy of the gardeners of England will be extended to his widow and family. The funeral took place on Monday last at High Wycombe.

# SOCIETIES.

## WOOLTON HORTICULTURAL SHOW.

THE sixth show was held at the Church Hall, on the 9th inst., and the Lecture Hall and Boys' School proved altogether inadequate for the exhibits. The entries had risen from 317 to 426, a record for the society. The exhibits, as usual, were noted for their excellent staging, making the show a very pretty one. Only a few of the more important classes will be noted, with the first prize winner in each case.

### CHRYSANTHEMUMS.

Twenty-four Japanese, distinct: Mr. Joseph Stoney, gardener to F. H. Gossage, Esq., had some good fresh blooms that also secured the silver challenge cup presented by Mrs. W. W. Gossage. For eighteen Japanese, Mr. T. Clarke, gardener to J. Clarke, Esq., was first. Twelve Japanese: First, Mr. T. Keightley, gardener to P. W. Barr, Esq. Eighteen incurved: First, Mr. J. Stoney, with excellent blooms. Twelve incurved: First, Mr. T. Clarke. Twelve distinct Japanese, arranged for effect: First, Mr. G. Haigh, gardener to Sir W. H. Tate, with a pleasing combination. Nine vases, distinct: First, Mr. J. Wilson, gardener to Sir J. T. Brunner, Bart.

### FRUIT.

Black Grapes, two bunches: First, Mr. W. Wilson, with good black Hamburghs. Mr. A. Hitchman, gardener to S. Sanday, Esq., had the best white Grapes in Muscat of Alexandria. Apples and Pears were well shown, the winners being Mr. G. Hammond, gardener to Colonel Ireland Blackburne, five first prizes; Mr. T. Lunt, one; Mr. E. Marshall, gardener to Mrs. Tod, one; Mr. J. McColl, one. Vegetables were largely shown, and filled the Lecture Hall. The chief prize-takers were Messrs. J. Glover, G. Hammond, R. Rothwell, T. Lunt, J. Honey, T. Keightley and Mrs. E. Sutton. The arrangements, as already mentioned, were excellent.

## ECCLES AND PENDLETON HORTICULTURAL SHOW.

THIS show was held in the Town Hall on the 11th and 12th inst. The entries were quite up to the average. The Chrysanthemums in pots were not very numerous, and were all staked plants. For nine large flowering plants, not less than five varieties, the premier prize and the National Chrysanthemum Society's silver medal were won by W. S. Boddington, Esq. For three plants, single-flowered, the chief award went to Mr. J. Ashley, gardener to the Lady Annette de Trafford, Weaste.

Cut blooms were shown in considerable quantity, but lacked uniformity. For twenty-four cut blooms, twelve Japanese and twelve incurved, there were four competitors for the silver challenge cup presented by the late John Stanning, Esq. Mr. J. Stoney, gardener to F. H. Gossage, Esq., proved the victor with an excellent lot. A bloom of Bessie Godfrey in this exhibit secured the silver medal of the National Chrysanthemum Society for the best bloom in the show.

Twenty-four blooms (six incurved, six Japanese, six reflexed, and six Anemones): First, Thomas Woodward, Esq. Twelve incurved, distinct: First, Mr. S. Ollier, gardener to F. Ashworth, Esq. Twelve Japanese, distinct: First, Mr. J. Stoney. Twelve large varieties (six incurved and six Japanese): First, Mr. J. Kirkham, gardener to Miss Stanning, Knutsford. Eighteen large flowered, six varieties, with their own foliage: First, Mr. J. Quinn, gardener to Mrs. Boddington, Eccles. Eighteen sprays of singles, in six varieties: First, Mr. J. Ashley. Twelve blooms (six Japanese and six incurved): First, Mr. R. Wainwright, gardener to T. Gaddum, Esq., Pendleton, winning the silver medal presented by Councillor Bethel. For six blooms (three Japanese and three incurved), Mr. W. Holmes, gardener to W. S. Forbes, Esq., Eccles, had the best.

In the amateurs' section W. Woollom, Esq., secured the first prize and silver challenge cup, presented by Mr. Agnew, with a good exhibit. As showing the skill of this exhibitor ten first prizes stood to his credit. The third challenge cup, presented by J. T. Lewis, Esq., for amateurs, was well won by H. D. Ashcroft, Esq.

Among the non-competitive exhibits Mr. W. Elkin (chairman of committee, and gardener to Mrs. Agnew), as usual, contributed some fine Palms. Stewart Garnet, Esq., Pendleton, sent a number of decorative plants that embellished the stage. Mr. J. Greatrix showed wreaths, &c. Messrs. Dickson, Brown, and Tait, Manchester, sent a fine bank of Begonia Gloire de Lorraine, Ferns, &c. Messrs Dickson and Robinson had a large collection of Potatoes. Mr. J. Bryan, who is the hon. secretary, deserves congratulations for such a successful issue to his hard work.

## CUPAR AND NORTH OF FIFE HORTICULTURAL SOCIETY.

OWING to the lack of public support recently a crisis has arisen in the affairs of the Cupar and North of Fife Horticultural Society, and a meeting was held in the Corn Exchange, Cupar, on the 8th inst. to consider as to the advisability of discontinuing the show for a year or two. After full consideration it was agreed to carry on the show as usual, and the following office-bearers were appointed President, Mr. D. C. Steuart; chairman, Mr. D. S. Edmond vice-chairman, Mr. C. Dicker; secretary and treasurer, Mr. George Wood; committee, Messrs. Brown, Clark, Donaldson, Drysdale, M'Gregor, Mackenzie, Oliphant, and Reid. The desirability of holding a concert in aid of the funds was referred to the committee.

## BRISTOL AND DISTRICT GARDENERS' ASSOCIATION.

THE meeting of this association was held at St. John's Rooms on the 10th inst. Mr. P. Garnish occupied the chair, and, notwithstanding the inclement weather, the attendance was good. The appointed lecturer for the evening was Mr. Wakefield, gardener to Mr. A. Shipley, Westbury-on-Trym, who took for his subject "Begonia Gloire de Lorraine and Gloxinias." He detailed the method of cultivation of these favourite flowering plants—potting composts, propagation, feeding, and general treatment in a practical way. Insect pests also received attention. Fumigating by the XL All Vaporising Compound was said to be the best of all methods for eradicating insects. A good discussion followed the lecture, and Mr. Wakefield received the heartiest thanks of the meeting.

Prizes for a vase of Chrysanthemums were awarded to: First, Mr. Francis Taggart (gardener, Mr. Binfield); second, Mrs. Colman (gardener, Mr. Spry); third, Mrs. Henry

# 1905.

**MILES** Elizabeth of 33 Gladstone-street Leicester widow died 18 February 1905 Probate **Leicester** 11 April to Richard Varnam Baxter waste and rag-merchant and Charles James Miles machinist Effects £69 10*s.*

**MILES** Emma of Hugglers-hall Semley Wiltshire widow died 25 February 1905 Administration **Salisbury** 21 June to Arthur John Miles groom Effects £109 17*s.* 11*d.*

**MILES** Enoch of 97 High-street Abersychan Monmouthshire died 11 October 1904 Administration **London** 19 December to Henry Miles blacksmith William Francis Miles schoolmaster and Enoch Miles assistant-schoolmaster Effects £733 12*s.* 4*d.*

**MILES** Frederick Augustus of High-street Cowbridge Glamorganshire died 12 July 1905 Administration **London** 23 August to Wilmot Agnes Miles widow Effects £1045.

**MILES** Frederick Thomas of 26 Priory-road Bedford Park Middlesex died 3 March 1905 at sea Administration (Limited) **London** 28 April to James Connolly company's-managing-director the attorney of Evelyn Miles widow Effects £702 13*s.* 1*d.* Resworn £850 5*s.* 1*d.*

**MILES** George of Codrington Gloucestershire labourer died 17 March 1904 Administration **Gloucester** 16 May to Elizabeth Miles widow Effects £91 2*s.* 6*d.*

**MILES** George of the "Padwell" inn Stone-street Seal Kent died 28 July 1905 Administration **London** 30 August to Elizabeth Jane Miles widow Effects £54 13*s.* 3*d.*

**MILES** George Thomas of St. Mary's-cottage High Wycombe Buckinghamshire died 17 November 1904 Probate **London** 12 April to George Thomas Miles steward and Wadsworth Burrow Lillington solicitor Effects £900 6*s.*

**MILES** Hannah of Glandwr Morvil Pembrokeshire widow died 28 February 1905 Probate **Carmarthen** 20 September to Sarah Thomas (wife of David Thomas) Effects £378 2*s.* 7*d.*

**MILES** Harriet of Woolhope-road Bath-road Worcester widow died 23 May 1905 at Summer's-hill Stroud Gloucestershire Administration **Worcester** 7 June to John William Miles shopkeeper Effects £26.

**MILES** Harvey Thomas of Greenodd near Ulverston Lancashire architectural-sculptor died 20 July 1905 Probate **Lancaster** 29 August to Mary Ann Miles widow Effects £1241 14*s.* 9*d.*

**MILES** James of Wapping-road Bradford bricklayer died 13 February 1905 Administration **Wakefield** 20 March to Martha Miles widow Effects £2227 10*s.*

**MILES** James of 1 Narbonne-avenue Clapham Common Surrey died 27 February 1905 Probate **London** 6 April to Charlotte Miles widow Samuel Exton gentleman and Samuel Charles Woolley baker Effects £6341 8*s.*

**MILES** James of Netherton-farm Pencoyd Herefordshire farmer died 27 July 1905 at the "Ferry Royal" hotel New Brighton Cheshire Administration **Hereford** 18 September to Mary Millicent Miles widow Effects £1033. Resworn £1328 10*s.* 4*d.*

**MILES** Jane of Prisk near Cowbridge Glamorganshire (wife of Thomas Miles) died 2 June 1905 Probate **Llandaff** 3 August to the said Thomas Miles yeoman and Alfred Giles solicitor Effects £670 0*s.* 4*d.*

**MILES** John Smith the elder, of Broughton Hants retired cab-proprietor died 6 February 1905 Probate **Winchester** 18 February to Ellen Miles spinster and William Tanner auctioneer Effects £255 2*s.*

**MILES** Margaret of the lunatic-asylum Bristol widow died 13 October 1904 Administration **London** 27 February to Thomas Griffiths tea-merchant's-assistant Effects £201 5*s.*

**MILES** Mary Ann of Buckhurst-house Isle-of-Graine Kent spinster died 21 April 1905 Administration **London** 19 May to William Stephen Miles farmer Effects £781 8*s.* 2*d.*

**MILES** Mary Ann Lyle of 3 Hatherley-road Kew-gardens Surrey widow died 21 June 1905 Administration **London** 21 July to Charles Pendril Waddington esquire Effects £564 16*s.* 7*d.*

**MILES** Mary Elizabeth of 74 Boundary-road Aylestone-park Leicester spinster died 19 July 1905 at the Borough-asylum Humberstone Leicestershire Administration **Leicester** 15 August to Thomas Miles telegraph-clerk Effects £675 15*s.* 4*d.*

**MILES** Nelson of 187 High-street Plumstead Kent died 20 May 1905 Probate **London** 15 June to John Henry William Dorbon gentleman Effects £1782 13*s.* 2*d.*

**MILES** Naomi of Park-terrace Outwood Wakefield (wife of Benjamin Miles) died 30 August 1905 Probate **Wakefield** 11 September to John Hall miner Effects £33 11*s.*

**MILES** Robert William of 244 Queen's-road Norwich licensed-victualler died 20 November 1905 Administration **Norwich** 20 December to Hannah Miles widow Effects £78 14*s.* 6*d.*

**MILES** Sarah of 11 Horton's-yard St. Martin's-at-Oak Norwich widow died 11 July 1905 Probate **Norwich** 26 July to William Jacob Miles and George Frederick Chapple printers Effects £159 4*s.* 8*d.*

King's gardener at Frogmore. The glasshouses are around him, and close by are the bothies in which his assistants live. That has certainly something to do with the excellence of the fruits and flowers which are grown there.

**Too Much Alike.**

March 12th.—I am glad to see that the National Sweet Pea Society is doing something to prevent the unnecessary multiplication of names. It may be in the interests of seedsmen that they should give their own names to any

MR. GEORGE MILES,
Head Gardener and Agent, Daw's Hill Lodge, High Wycombe.

varieties they raise, whether those varieties resemble others or not, but it certainly is not in the interests of the public. The society has declared the following to be identical, and, in consequence, will recognise only the first names in each case:—Clara Curtis and Primrose Spencer; Etta Dyke and White Spencer; Evelyn Hemus and Mrs. C. W. Breadmore; Helen Lewis and Orange Countess; James Grieve and Mrs. Collier; John Ingman, George Herbert, Mrs. W. King, and Phyllis Unwin; Lady Grisel Hamilton, Countess of Radnor, and Princess May; Mrs. Hardcastle Sykes, Bobby K., Florence Morse Spencer, Lorna Doone, and Princess Victoria; and Queen Alexandra and Scarlet. If we take merely this list—and it could be largely extended, not only among Sweet Peas, but also among many other plants—it will be seen that the same variety has often been put on the market under two different names, and in one case at least under as many as five. Surely there must be some way of preventing such confusion. It is not fair to the public, and, that being so, it must be injurious to seedsmen themselves.

**The Chance of Position.**

March 13th.—I have more than once referred to the importance of position in Evolution. A writer in the "Fortnightly Review" says, in this connection, "Some cataclysm might easily destroy a whole species confined to a particular locality, and no doubt often has done so. Professor Kellogg, in his admirable review of the situation, 'Darwinism To-day,' asks, 'What shall decide, when the big whale opens his mouth in the midst of a shoal of myriads of tiny copepods floating in the pelagic waters of the Aleutian seas, what copepods shall disappear for ever?' And he returns the answer, 'Mainly, we should say, the chance of position.' And surely there is no other." Do we not see the same thing with individual plants in our gardens? It is merely the chance of position which decides which of them shall live and which shall be thinned or hoed down.

H. C. DAVIDSON.

# The Gardens of Lord Carrington.

INTERVIEW WITH MR. G. T. MILES, AT DAW'S HILL LODGE, HIGH WYCOMBE.

WITH the courteous permission of Lord Carrington, I had the opportunity, a few weeks ago, of going over the pleasure gardens at Daw's Hill Lodge. Until about ten years ago, Lord Carrington occupied Wycombe Abbey, the historic seat of the family in Buckinghamshire, but this he then decided to sell, together with thirty acres of the park, converting an ancient farmhouse on the summit of Daw's Hill into a residence for his own occupation. With regard to fruit and vegetables, Lord Carrington retains possession of the very extensive kitchen gardens and ranges of glasshouses, which are now known as "the old Abbey gardens." These, on the occasion of my visit, I also inspected; but, on my arrival, Mr. G. T. Miles, the steward and head gardener, suggested that we should first turn our attention to Daw's Hill. Accordingly, we made our ascent by a precipitous path, appropriately called the "Box Walk," on account of the prevalence of Box, which thrives exceedingly on the slopes, the fine Handsworth variety being put into the shade by an unnamed variety quite different in appearance, planted by the father of Mr. Miles thirty years ago.

"That was long before the pleasure grounds at Daw's Hill Lodge were made?" I said.

DAW'S HILL LODGE, HIGH WYCOMBE.

"Yes, twenty years earlier. But the pleasure grounds here were made under the auspices of my father, whom, as you are probably aware, I succeeded, on his death in November, 1904. I had previously acted as his assistant for more than twenty years. My father was gardener to Lord Carrington and his predecessor for nearly fifty years, and steward for a considerable period."

"You must have been keenly interested in the development of the new gardens?"

"Naturally. As all my life has been spent here, and I started work in 1877, I am familiar with everything that has been done. At one time I exhibited fruit and vegetables largely at the leading shows, for my father, but when Lord Carrington was appointed Governor of New South Wales, my father gave up exhibiting. The woods, etc., are under my charge."

"Speaking of woods, there are some fine clumps of Beeches on the hill."

"There is no doubt that here the Beech is easily king of the trees. A striking feature of many of the specimens is their perfect straightness. We keep them quite in their natural state. Spruce Firs also do well, as you can see by the avenue. Amongst shrubs, the Hollies are especially noteworthy."

**A Farmyard Converted into a Flower Garden.**

We had now climbed up the hill, and reached the house on the summit. Approaching it from the north side, and passing a tennis lawn, with its back wall planted with dessert Cherries, we entered the gates, and I was then able to realise in some degree the transformation which has been effected by means of skilful hands.

"This court," said Mr. Miles, "was originally the farmyard, with the usual buildings round

it. The buildings are now a portion of the house, the entrance being on the site of the barn, but the farmyard has become an ornamental garden."

"With the walls adorned by creepers?"

"The creepers are chiefly Ivies, Cotoneasters, Cratægus, Passifloras, Lonicera, and Jasminum. One of the borders is chiefly planted with Lilacs, Prunus Pissardii, and Berberis Darwinii and B. stenophylla."

"Do you fill the beds in the summer?"

"Yes, with Geraniums Henry Jacoby and King of Denmark, Ivy-leaved varieties trailing behind. The mass of scarlet against the green of the shrubs is very effective. Before the Geraniums, there is a show of Wallflowers—Primrose Dame, Blood-red, and Harbinger. We have just started some Rambler Roses here, including Dorothy Perkins and Crimson Rambler. Old stones have been used for paths, and these I am going to plant with wild Thyme."

**An Ornamental Orchard.**

Proceeding from the north side to the east front, I observed an herbaceous border of considerable dimensions, with Cedars, wild Cherries and other trees planted at the back, as a protection.

"You might mention some of the varieties which do best in a border in such a position?" I suggested.

"Tritomas, Phlox, Helianthus, Chrysanthemums, Asters, Bocconias, Rudbeckias, and Echinops. These, with others, are filled up with Dahlias, and edged with Berberis aquifolium. We had to see what would grow up here."

"And on what soil?"

"The natural soil is chalk; but we have carted up enormous quantities of soil. That has been one of the necessary achievements to make the garden."

"I notice that on the east side you have an orchard?"

"Yes, it was planted for ornamentation chiefly, and contains Apples and Morello Cherries. There are also flowering Cherries and Crabs."

"What are the varieties of Apples?"

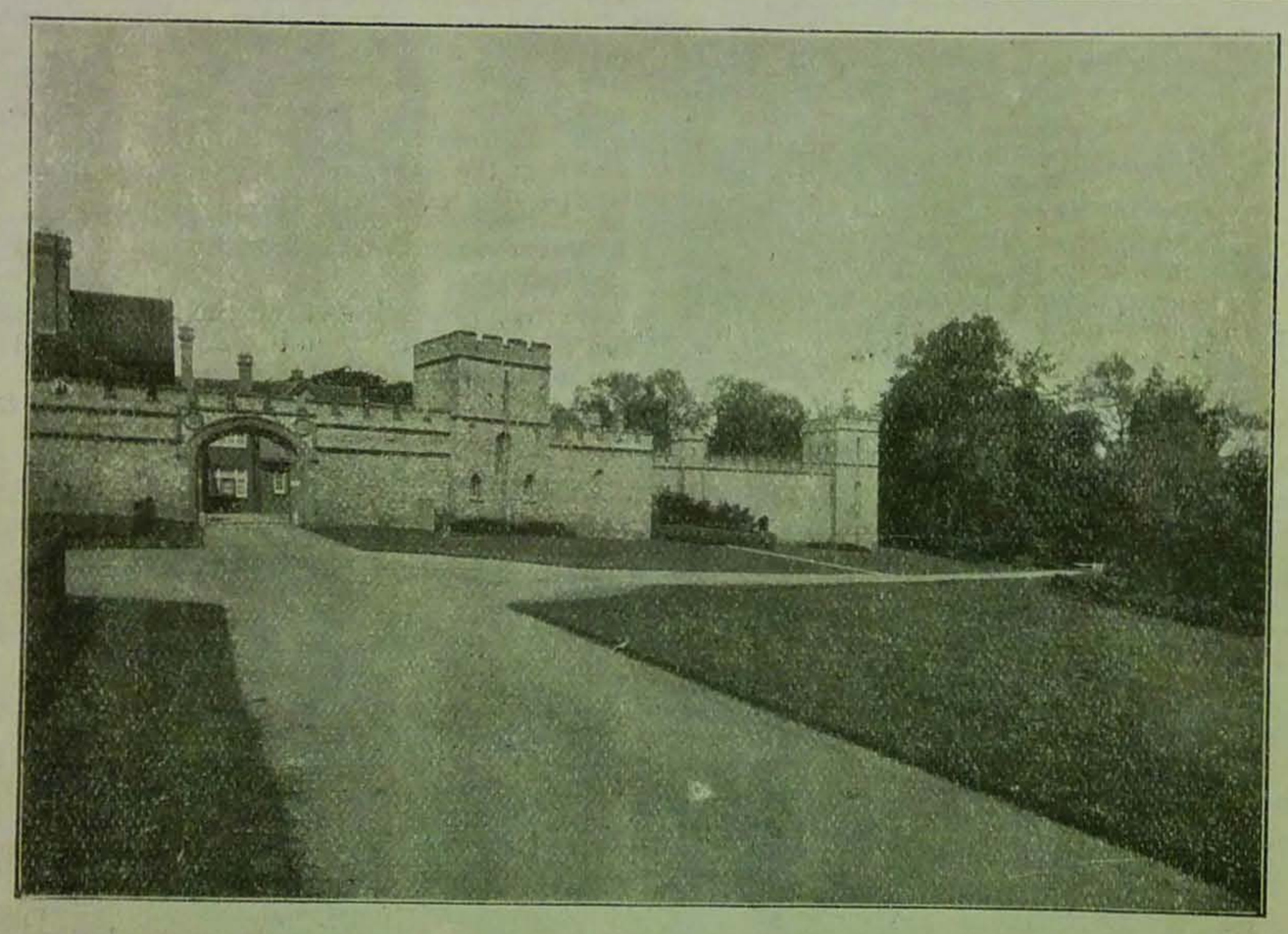
"Cox's Orange Pippin, King of Pippins, Margil, The Queen, Nelson's Glory, Bess Pool, Gloria Mundi, Duchess of Oldenburg, and Lady Sudeley."

At the invitation of Lord Carrington, with whom I had a short conversation, I then went inside the picturesque mansion, gaining access by a charming corridor to the fine reception-room (which was originally the stables), the great ball-room (which was in past days the barn), and the delightful smoking-room (which formerly served the purpose of a cartshed and granary). I found, however, that several attractive features of the farmhouse, have been carefully preserved, and that the ancient entrance still exists, the impression created by the whole being singularly pleasing.

"And the climbers on the mansion?" I enquired, as we returned to the gardens.

"Principally Ivies (variegated and green), Clematises (montana and Jackmanni), Banksian Roses, Lonicera, and Vitis coignetiæ. The borders underneath, now filled with Wallflowers, will contain, in summer, pink or red Geraniums. On the west side of the house, with the carriage-drive leading to Wendover Gate, through an avenue of Limes, are clumps of Lilacs, Berberis, Copper Beech, and herbaceous Pæonies, while lower down are Guelder Roses, Maples, and Laburnums, also planted in clumps."

"The ribbon borders on the terrace appear to be all filled with Wallflowers?"



ONE OF THE ENTRANCES TO DAW'S HILL LODGE.

"Yes, for spring. On the terrace you will notice there are four big clumps on raised ground. These are stumps of old Yew trees planted with variegated Ivy and Turner's Crimson Rambler Rose."

**Roses in Quantity.**

But here, above the steps, the Rose garden is the dominating feature.

"This Rosery," said Mr. Miles, "is, in fact, a series of geometrical gardens, one containing twelve beds, another fourteen, and so on. Hybrid Perpetuals and Hybrid Teas, mixed, are largely used, the Roses being protected by Yews, while Golden Yews are planted as pillars, and will be festooned from corner to corner. These gardens are not limited exclusively to Roses; here is one, you see, with a long herbaceous border, with standard Roses at the back. Standards, I find, do fairly well at this altitude, in spite of the exposed position. Then, there is a bed of Roses (Bardou Job), with a groundwork of Violas (Lord Beaconsfield), which was only planted last season. The border at the back of this garden consists chiefly of Dahlias, with Hollyhocks, Sunflowers, and standard Roses of the weeping varieties behind. The varieties in the Rose beds of one variety are Helene, Psyche, Frau Karl Druschki, and Mrs. Sharman Crawford."

"Now, we come to another design."

"Yes, this is a scroll. The oval bed is filled with a Rose which does remarkably well, viz., Zephirine Drouhin, with Violas for ground-work. The latter seed themselves, and are little trouble. The site of this was once a small kitchen garden, and a few of the old Apple trees still remain. As to the Roses here, there is a corner of Celine Forestier, a bed of Polyantha Roses (Eugenie Lamesch), a bed of General Jacqueminot, and a corner bed of La France and Caroline Testout, with Aimee Vibert in the centre."

"You might give me the names of the Roses which suit the position best."

"Ulrich Brunner, Marjorie, Camoens, Rubens, Gruss an Teplitz, Gustave Nabonnand, Princesse de Sagan, Rainbow, Joseph Bernachie, Catherine Mermet, Killarney, Souvenir de Malmaison, Madame Soupert, Madame Pierre Cochet, Fisher Holmes, Countess of Oxford, Marquise Litta, Kaiserin Augusta Victoria, Dr. Grill, Beaute Inconstante, Ellen Willmott, Marie van Houtte, Madame Hoste, Perle des Jardins, Perle d'Or, Perle de Rouge, Leonie Lamesch, and many others. The Roses on the long border are Duke of Marlborough, Duke of Teck, Duke of Fife, Duke of Edinburgh, Duke of Connaught, Liberty, Countess of Gosford, Bessie Brown, Madame Isaac Pereire, Peggie, Lady Mary Fitzwilliam, Merveille de Lyon, Earl of Dufferin, Betty, Duchess of Winchester, and Lady Battersea."

**The Garden Design.**

"Now," continued Mr. Miles, "we come to a part of the gardens which was more recently taken out of the field. The object in this addition has been to avoid formality. For example, the two long herbaceous borders are quite original, Coreopsis, Phloxes, Delphiniums, Montbretias, Gaillardias, Michaelmas Daisies, Anchusas (including the Dropmore variety), Irises, Border Carnations, Tree Lupins, and Pentstemons being largely used, all with the view of giving a mass of colour. The borders are broken with poles festooned with Rambler Roses, and edged with Violas, Cerastiums, and Arabis. At the end of these borders is a long bed of Roses backed by Yews, with an orchard, planted entirely for decorative purposes, with Daffodils in the grass."

"But you have a number of other beds?"

"The most important of these are the beds comprised in what is called 'The Garden Design,' with a sundial in the centre. There are eight beds, which in summer are thus filled:—Two with Calceolaria amplexicaulis, two with Heliotropes Lord Roberts, two with Oak-leaved Geraniums surrounded with Geranium Souvenir de Charles Turner, and two with Oak-leaved Geraniums surrounded with Geranium Madame Crousse. The outer edging on one side consists of Cerastiums, and on the other of Thrift. You may judge how much bedding is required when I say that it takes nearly two hundred and fifty plants to make a mass. Then, before we leave the bedding, mention might be made of the two large beds containing flowering and other shrubs, such as Berberis, Hollies, and Spiræas, with a groundwork of St. John's Wort interspersed with Montbretias. There are similar beds on the other side, with two herbaceous borders, backed up by Rambler Roses on poles and latticework, behind these again being a row of Mrs. Sinkins Pinks, and a plantation of Conifers. The latter include Wellingtonias. Retinosporas, Cedrus deodara, Picea nobilis, and Junipers in variety, the Delphiniums in front making in summer a blue walk. Behind all these is a Yew hedge, with Hollies, the great object in view being to afford protection five hundred feet above sea-level."

"When did you plant the Cedars?"

"Only eight years ago, and, in spite of the bleakness, they appear to be doing remarkably well. The same may be said of a number of trees shifted from various plantations, and planted here, in order to make a screen to afford shelter from the public roads and the north-west winds. An oak fence encloses the pleasure grounds from the public road."

"How large are the pleasure grounds?"

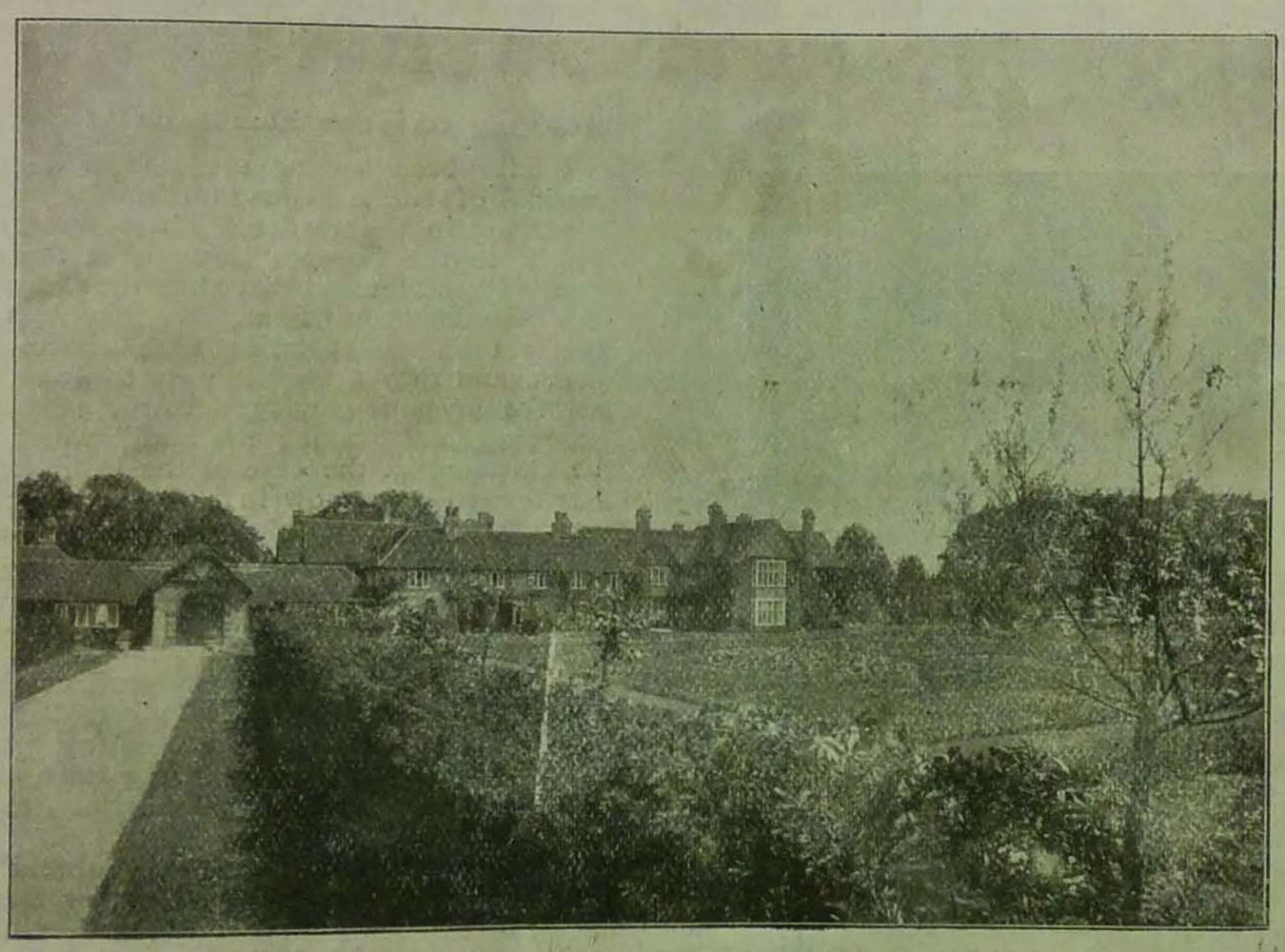
"Between twenty and thirty acres, all on the elevation. By the way, two of the Cedars of Lebanon were planted by the King and Queen, in January, 1903."

"One of the most striking characteristics of the pleasure grounds is the number of lovely views."

"We cut out the woods for the purpose of obtaining the views, and at different points can be seen Hughenden House, West Wycombe, with its church on the hill; also Wittington Park, Cookham Dean, and other well-known places of interest. Of course, the park still remains a very large one, about two hundred and fifty acres in extent."

**The Abbey Gardens.**

Descending the hill, and leaving the pleasure grounds by another entrance, we soon reached the old Abbey gardens.



THE LAWNS AT DAW'S HILL LODGE, HIGH WYCOMBE.

"These gardens," said Mr. Miles, "are used for the purpose of growing fruit and vegetables, and for the bedding plants which are used in the pleasure grounds. All the flowers are cut for decorating. Here, for instance, are a number of Border Carnations and batches of old Roses of numerous varieties. The walls near the entrance from the tunnel are planted with Pears on single cordons, the Apples being on Paradise and Crab stocks, of which the former is preferable. All the space is turned to account, and all the walls are clothed either with Peaches or Nectarines, Pears, Plums, or Cherries. Then, again, the Pears on the north-east wall, horizontally trained, are interspersed with Currants, the latter giving us a good supply of late fruit. In front of this wall is a long stretch of Raspberries, chiefly Superlatives, netted from the wall downward."

"I am interested to see that you have a large number of table-formed Apple trees. Do you get good fruit from them?"

"Both good fruit and excellent crops. One of them is a very fine specimen of Cox's Orange Pippin. Other varieties, all of the same shape, are Yorkshire Greening, Blenheim Orange, Dutch Mignonne, Bess Pool, King of Pippins, Wellington, Manks' Codling, Mere de Menage, Mr. Gladstone, Scarlet Nonpareil, Rosemary Russet, Round Winter Nonsuch, Cox's Pomona, and Lane's Prince Albert. Peaches, Figs, and Apricots are also grown on the walls. Under the principal Apricot wall, on which also are Nectarines (Stanwick Elruge, Pineapple, and Early Rivers), is a border which we use for early Peas. In these nine acres of kitchen garden we have to choose our aspects. The early Peas are William Hurst and English Wonder."

"Do you go in for many Strawberries?"

"Yes, a considerable number, and we net them in front from the wall. The varieties are Royal Sovereign, Givon's Late Prolific, President, Sir J. Paxton, Fillbasket, Latest of All, The Bedford, Leader, and La Grosse Sucree."

"What about Black Currants and Gooseberries?"

"We do not suffer much from the mite, because, if a Black Currant tree is affected by it, we root it up. That is the only safe remedy. There are several Gooseberry quarters, one of the best varieties being Warrington. We grow all the usual vegetables, and force a good deal of Asparagus in particular, planting as many as seventeen beds of Connover's Colossal. We might now run as rapidly as we can through the houses, because of the failing light. In one you see we combine Brown Turkey Figs on the wall, and Roses as the principal feature, the varieties being Niphetos, Gloire de Dijon, Madame Lambard, and Marechal Niel."

**Fruit and Flower Houses.**

"Then you have a fine Cherry house?"

"Yes, for dessert varieties, and we pick the fruit in May which is exceptionally early. The varieties are Elton, Early Rivers, Black Tartarian, and Bigarreau Napoleon. We have two houses for forcing Strawberries, for which purpose I use President as well as Royal Sovereign, but the latter is the better. The Melon chiefly grown is Hero of Lockinge, and our Cucumbers are Covent Garden Perfection."

"Have you many winter-flowering Carnations?"

"The principal are Mrs. Leopold de Rothschild, Ethel Crocker, and Britannia; and we have several varieties of Malmaisons, together with Princess of Wales, Horace Hutchinson, Prime Minister, Princess May, Cecilia, Uriah Pike, and Lady Hermione, which last is really a Border, but has a specially good calyx and scent. Roses and Carnations are our favourite flowers."

"Then there are the Peach houses and Vineries?"

"In the former we grow many of the same varieties as on the walls. I may say that I personally do all the pruning, and have always taken a special interest in the cultivation of fruit under glass. In one of the Peach houses there is a Marechal Niel Rose, from which we have had some fine blooms this year."

"You have outside and indoor borders in your Vineries?"

"The advantage of having both is that if the outside plant fails, the inside one may succeed. In the early Vinery, we are just thinning the bunches, and we get fruit about the latter end of April. The varieties are Black Hamburgh and Foster's Seedling. Another Vinery consists of Black Hamburghs and Muscats. Then there is a house of Gros Colmar, another house of Black Hamburgh, and another of Muscats. The latest Vinery contains Black Alicante, Black Hamburgh, Gros Maroc, Gros Colmar, and Madresfield Court."

"I notice that you have Imantophyllums planted out in borders in one of the Vineries."

"They do just as well as in the pots, the trusses being equally fine. We grow a considerable quantity of Begonia Gloire de Lorraine, Cyclamen, Poinsettias, and Gloxinias, and a few Ferns."

ALFRED WILCOX.

## The Latest Comers.

**A New Class of Dahlia.**

A NEW type of Dahlia, known as the Pæony-flowered, owing to a supposed resemblance to the latter flower, has recently been introduced, and appears likely to become popular. A few good varieties are Andrew Carnegie, which has flowers of a salmon-pink, shaded with bronze, and grows about four feet in height; Bertha von Suttner, salmon-pink, shaded yellow, very free-flowering; Firefly, white, edged scarlet; Sunrise, a beautiful blending of pink, carmine, and yellow—this grows about four feet high, has an excellent habit, and is very free-flowering; Corallina, with large semi-double flowers of a kind of coral-rose colour; Bronze Gem, which bears flowers of a bright bronzy-red colour, carried well above the foliage on long, wiry stems; and Geisha, of which the flowers are yellow, suffused with scarlet, very free-flowering, and of a good habit. These are sent out by Messrs. T. S. Ware, of Feltham.

**New Chrysanthemums.**

MRS. CHAS. PENFORD is an exceptionally fine flower, of deeply-built form; the "florets," or petals hang in a very graceful manner, and form a large and beautiful flower. The colour is a clear, soft yellow, just tinted with bronze on the crown of the flower. It is of a dwarf habit of growth.

Charles Beckett is a remarkably handsome flower, the colour being old gold, shaded bronze; the petals spread outwards, and hang downwards in a most graceful manner. It has a dwarf, sturdy habit.

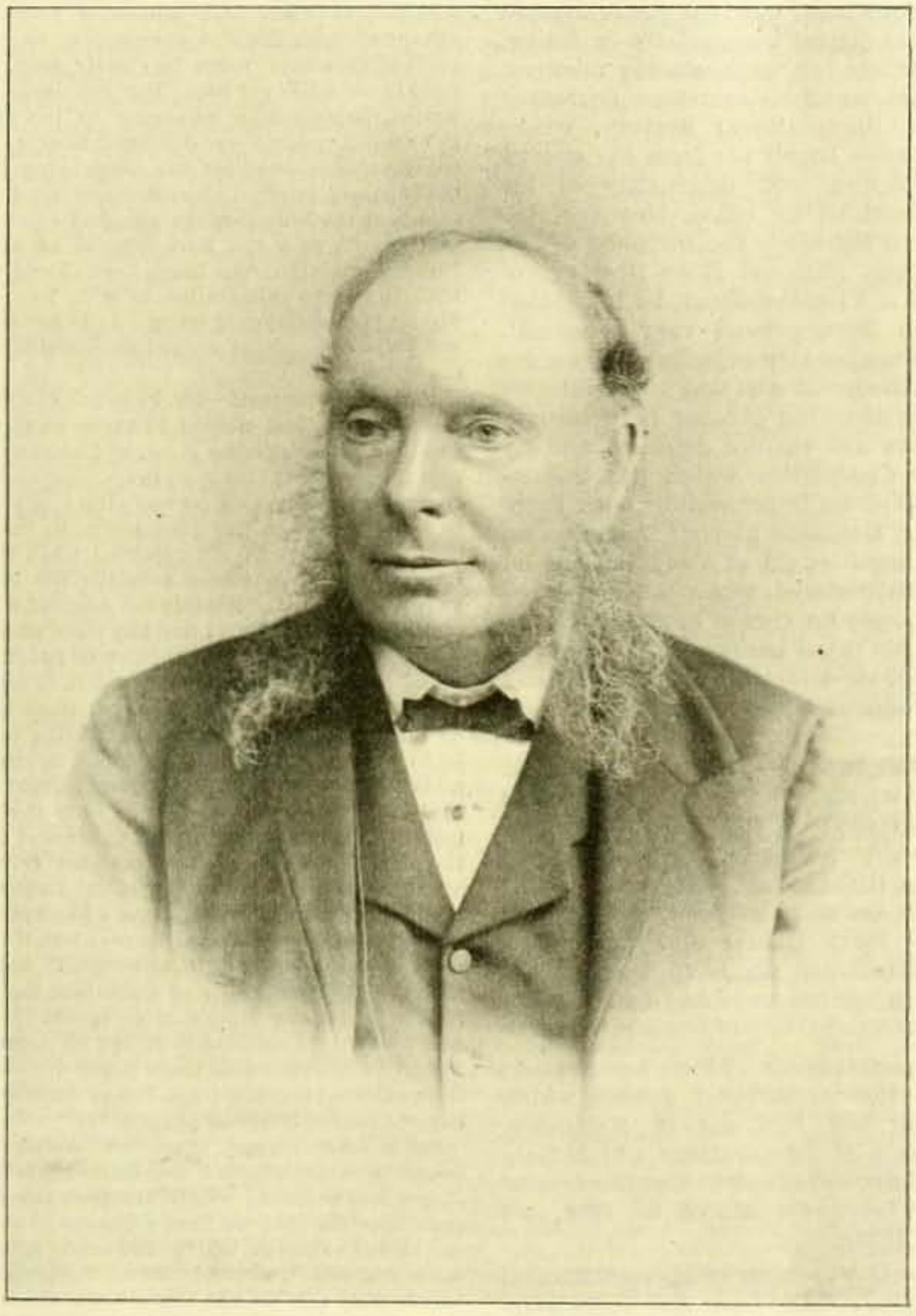
Another magnificent variety is F. W. Lever, which has extra large flowers of a creamy-white hue. It is of reflexed form, with very long petals, and attains a diameter of quite ten inches. This has received a first-class certificate from the National Chrysanthemum Society, and an award of merit from the R.H.S.

Miss Faith Moore is a large flower of the purest white, with long curling and twisting petals. It is a very robust grower, and requires a 10-in. pot.

All the above are new varieties of this year, of the large-flowering Japanese type.

# Obituary.

WILLIAM BULL.—We greatly regret to have to announce the death of Mr. Wm. Bull, the well-known nurseryman, and new and rare plant merchant, of King's Road, Chelsea, which took place at his residence on Sunday, June 1, after three days' illness, his age being seventy-four years. Few men in the world of horticulture have been better known or more widely respected than William Bull, to whose enterprise and perseverance our gardens



THE LATE WILLIAM BULL, V.M.H., F.L.S., &c.

are indebted for the introduction of many interesting plants, especially warm-house plants of decorative character. Settling down to the horticultural trade early in life, he became traveller for the then important firms of Rollisson & Sons, and Messrs. E. G. Henderson, and "on the road" he had the reputation of being the smartest traveller in the trade.

On turning to the *Gardeners' Chronicle* for March 16, 1861, we find the announcement that Mr. William Bull, F.R.B.S., &c., had taken over the premises and nursery stock of Messrs. John Weeks & Co., in the King's Road, Chelsea, and that he had there started his establishment for new and rare plants, a list of which, to the number of about seventy-five, being at the same time announced. The list is one of which any nurseryman might well be proud, and most of the things are still garden favourites, and some yet rare after more than forty years. The first plant enumerated, Aërides affine niveum, a pure white form, is not now in cultivation. If it could be found it would command a very high price. Lycaste Skinneri alba, Trichopilia crispa, and other still rare plants were enumerated, and also a fine representative list of novelties generally, many of which secured Awards at the Royal Horticultural Society, for even in the first month of his new venture, Mr. Bull was a successful exhibitor, and our reports of the shows from that time supply distinct evidence of his success in obtaining desirable plants.

Ornamental plants and warm-house flowering plants and Orchids were the main objects of his business, but no matter what the subjects were that were in fashion he went zealously into their introduction, as he did about 1864-65, with the many forms of Aucuba.

Orchids were his favourites always, and of them he had a good knowledge, both commercial and cultural. Thinking over some of the best of his introductions, it is pleasant to see that a really fine and distinct plant is in no danger of getting into disrepute by age or by being superseded by later introductions, as witness Lælia anceps alba, of his early importation, which is still prized as the best of its class; Lælia præstans alba, and other of his introductions.

In pursuit of novelty in Orchids and new plants, Mr. Bull about 1880 sent out Messrs. Shuttleworth and Carder to Colombia, and their efforts were satisfactory; and continually, when any new venture suggested itself to him, he acted on it, and for some time past he had been turning his attention to Orchid-hybridising.

Mr. Bull was always a hard worker; early and late he was to be found at his business, and no detail in it escaped his personal supervision. But despite his precision in all matters relating to business, and the consequent strictness he had to exercise with his *employés*, he was a just and good master; and once a man proved himself worthy of a post of trust, he could remain in it as long as he wished.

Mr. Bull's energy and his interest in new plants were unbounded. Many of them were described and figured for the first time in these columns. Many a time also in former years has the Editor been summoned by telegraph at an early hour in the morning to come and see some novelty "on your way to town," and never was he disappointed. On another occasion we remember Mr. Bull bringing to this office some Aroid whose perfume was as vile as its interest was great. So careful was he of the plant, that he carried it in his brougham till the stench became so great that he was obliged to get out and sit with the driver in the open air, and thus brought the treasure to the editorial sanctum.

His business relations earned him a world-wide reputation. He was a F.L.S., F.R.G.S., F.Z.S., M.A.I., F.R.B.S., and of other societies, both British and foreign; but among all his honours, the one which he most prized was the Victoria Medal of Honour, presented to him by the Council of the Royal Horticultural Society. He was altogether a most remarkable man, and his death will cause deep regret among a large circle of friends and correspondents.

JOHN W. MILLER.—We have to record with much regret the death of a very old correspondent to this journal. Mr. John Miller, who retired from the charge of Lord Foley's garden at Ruxley Lodge, Esher, only a year ago, was eighty years of age, and had been head gardener to different noblemen and gentlemen for a period of fifty-two years. His first charge was at Earditon, Sir William Smith's garden, in Worcestershire, in 1849, and subsequently he exhibited varieties of Oranges, Lemons, and Shaddocks, at meetings of the Royal Horticultural Society in Regent Street, and Peaches and Nectarines at the Royal Botanic Society's exhibitions in Regent's Park, winning his first Silver Medal in 1853.

After remaining at Earditon for fifteen years, Mr. Miller was gardener at Astle Hall, in Cheshire, for two years, then spent another year in the nurseries of Messrs. Jas. Veitch & Sons, Chelsea, and Messrs. Dickson, Chester. He then entered the service of Lord Foley at Worksop Manor, Notts, in 1864. From this garden Mr. Miller exhibited very frequently, and with much success. Upon the death of the late Lord Foley several changes took place at Worksop Manor, and for some time Mr. Miller had charge of Clumber Gardens as well as those at Worksop Manor, both places belonging to the trustees of the late Duke of

Newcastle. He effected many alterations in the pleasure-grounds, under the direction of the late Mr. Hope, of The Deepdene, near Dorking, and blew up many large tree-roots with dynamite. This was witnessed by the late Mr. W. E. Gladstone and other trustees, also the lifting and planting of large old Yews to form shelters, upon the system adopted by Barron & Son, Elvaston. Large trees were planted as late as the middle of July, and not one specimen died. Whilst at Clumber, Mr. Miller raised a new Melon, which he named after William Tillery, then gardener at Welbeck. It remained one of the most popular Melons for many years, and has been used as a parent in the raising of some of the green-fleshed varieties of the present day.

Mr. Miller left the Duke of Newcastle's employ in 1882, and carried away with him a flattering testimonial from Mr. Gladstone, written at 10, Downing Street, on March 24 of that year.

After spending a year with Mr. Hargreaves in Hampshire, Mr. Miller was asked to again serve the Foley family at Ruxley Lodge, which Lady Foley had bought after Lord Foley's death at Worksop. Whilst at Ruxley, Mr. Miller was awarded twenty-four Medals by the Royal Horticultural Society.

Deceased's brother, Mr. William Miller, of Berkswell, near Coventry, is well known to readers of these pages. Mr. Miller leaves a widow seventy-six years of age, also five sons and one daughter. The eldest son is gardener to Lord Bentinck, at Underley Hall, Westmoreland, and two others are head gardeners in New Zealand; a fourth son is with Messrs. Carter, Page & Co., seedsmen; and another is goods agent at Leicester under the Great Central Railway Company. The only daughter is the wife of Mr. John Pentland, gardener and bailiff at Ashwicke Hall, Glos.

Deceased did not retire from active work until the remarkable health he enjoyed so long was impaired. During the greater part of the last year, at East Moulsey, Surrey, he has been confined to his room.

Belonging to the old school of gardeners, and possessing remarkable energy, enthusiasm, and industry himself, he could excuse anything in others more easily than indifference to duty. *P.*

CHARLES DOWNIE.—Mr. Chas. Downie, for some few years in the grass-seed department of Henderson & Co., of New York City, died on May 20, 1902, aged thirty-seven years, after a brief illness.

Mr. Downie was born, as we learn from the *Florists' Exchange*, in Nova Scotia, of Scotch parents, his father being a Presbyterian clergyman. While very young, his parents removed to Jamaica, West Indies, and there his early boyhood years were passed. They returned to Scotland, and when about eighteen years old, young Downie entered the employment of Downie & Laird at the Edinburgh nurseries, John Downie being his uncle. After the usual course in nursery and shop, he was sent out "on the road" to represent the firm, and travelled over Great Britain for several years in that capacity.

In 1889 he came to the United States and found employment with Peter Henderson & Co. as a general seed clerk. Shortly afterwards there was a vacancy in the department of agricultural seeds, and he was selected to fill it. His aptness, coupled with unusual physical and mental energy, made him an excellent pupil, and he very soon mastered the details of that department.

He was a fine specimen of physical manhood, standing 6 feet 2 inches, well built, and apparently looked good for a long and useful life. His temperament was enthusiastic; he was very social and engaging in his manners. His was a very even disposition; a voluble and interesting talker, he made friends rapidly; he kept them as well. He was sunny and kind; his environment was always pleasant, and he will be sadly missed and long remembered by those who associated with him daily, as well as by a large number of friends throughout the country. He leaves a widow and one son, a boy about fourteen years of age.

CHARLES J. GRAHAME.—We greatly regret to have to record the death of this gentleman at Surbiton on the 26th ult. He was a member of the Stock Exchange, but took great interest in horticultural matters, especially in Roses, of which he was an enthusiastic admirer. For a time he acted as assistant secretary of the Royal Horticultural Society, where great things were hoped for from his energy and the freshness and originality of his ideas. He remained in office, however, too short a time to influence the fortunes of the society. In the National Rose Society, of which he was a Vice-President, he instituted reforms which have proved very beneficial, though they were greatly objected to by some at the time. His great aim was to popularise the society by affording greater inducements to the amateurs and smaller growers, and by removing the disabilities which weighed so heavily against them in competing with large growers. Mr. Grahame himself began as an amateur on a small scale at Croydon, but on removal to Leatherhead, where he had more space at disposal, he threw himself into exhibiting with his usual energy, and was as or more successful on a large scale than he had been when his opportunities were more limited.

H. H. HUNNEWELL.—Our correspondent Prof. Sargent writes:—"Our good old friend Mr. Hunnewell died on the 20th ult., in his ninety-third year. So many Englishmen have seen his garden, that the fact that he is dead will interest and grieve many of your readers. He has been the most liberal and intelligent patron of horticulture we have had in this country, and in various ways has done a great deal to facilitate the study of botany."

British horticulturists have been made familiar with the magnificent garden which this gentleman had laid out at Wellesley, Mass., by means of illustrations which from time to time have appeared in the *Gardeners' Chronicle* (see issues for March 30, 1889, and November 25, 1893).

Mr. Hunnewell was born in Massachusetts, of British family, coming from the neighbourhood of Croydon. His estate at Wellesley was famous, as he had the finest and most magnificent collections of Conifers and Rhododendrons to be seen anywhere in America. He lived among his trees as though they were a part of his very being. Mr. H. H. Hunnewell and his old gardener, Mr. Harris, who retired very recently because the burden of years was too heavy upon him, were companions rather than master and servant.

He had been a member of the Massachusetts Horticultural Society for fifty years, and his many public services, as well as his scholarly proclivities, were recognised by Harvard University, which conferred on him the honorary degree of M.A. His father and his two sons were also members of the University. A photograph of Mr. Hunnewell was given in the issue of the *Gardeners' Chronicle* for July 13, 1901, p. 23.

# SOCIETIES.

## ROYAL HORTICULTURAL.

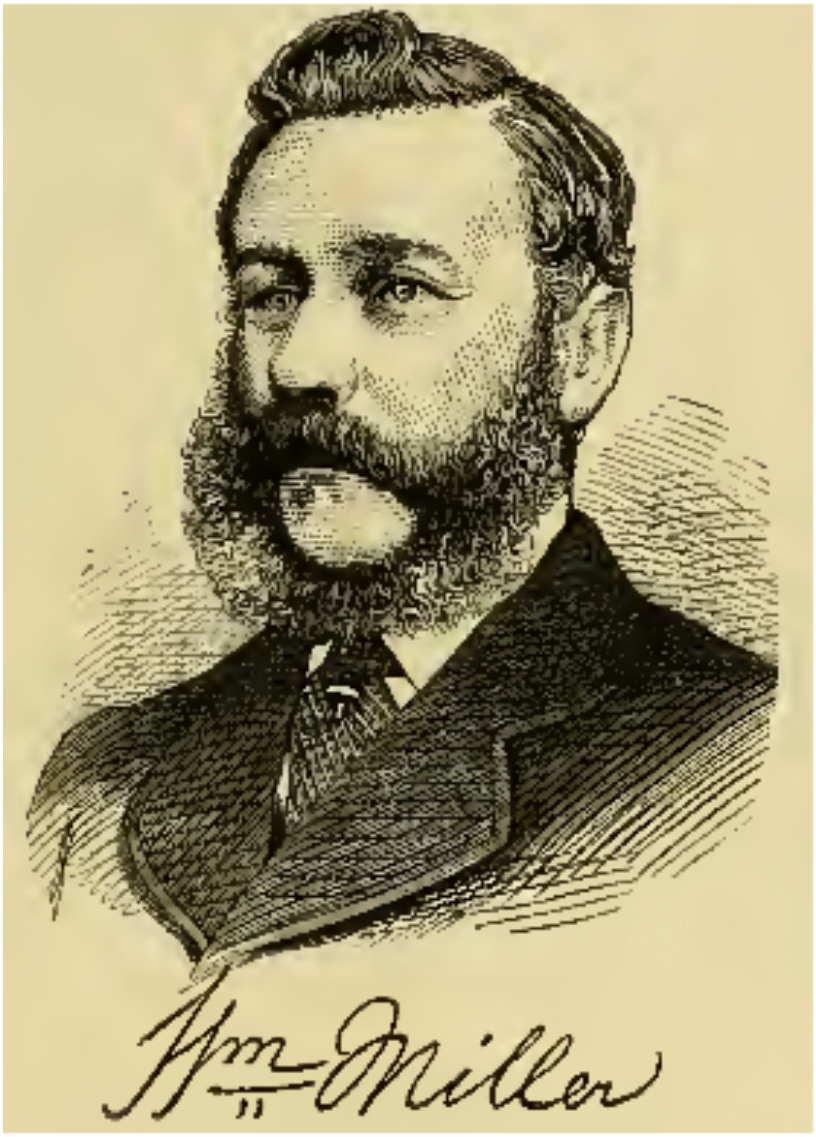
### Scientific Committee.

MAY 20.—*Present:* Dr. M. C. Cooke (in the chair); Messrs. Hooper, Worsdell, Saunders, Shea, Bowles, Douglas, Worsley, Gordon, Elwes, Chapman, Holmes; Prof. Boulger, Rev. W. Wilks, and Rev. G. Henslow (hon. sec.) Visitor, Prof. Perceval, S.E. Agric. College, Wye.

*Beech and Rose diseased.*—Mr. Saunders reported as follows upon the specimens sent to the last meeting: "As to the scale insects from Mr. Gregory. They are Cryptococcus fagi. The scale on the Rose is probably Aspidiotus ostreæformis—I say probably, because there is another species so closely resembling it that without boiling the little insect from under the scale in liquor potassæ, staining, and otherwise preparing it for examination under the microscope, so that certain parts of its anatomy can be clearly seen, it is impossible to be quite certain. The Aspidiotus and Crytococcus, though both belonging to the same family, the Coccidæ, are very different insects, the former being a true scale insect, the other being nearly allied to the mealy bugs. I should recommend that all the shoots of the Rose that are attacked should be cut off and burnt, and the rest dressed or sprayed with paraffin emulsion. The Beech bark should be scrubbed with the same preparation, or with ½ lb. of soft soap dissolved in a gallon of water. It is better to boil the soft soap in a quart of water before adding it to rest of the water."

*Melon Leaves, decayed.*—Mr. PURNELL PURNELL brought Melon leaves, and wished to know what the disease was they were suffering from, and whether he should pull the plants up and burn them. He also said it was spreading rapidly, and he was afraid it might extend to other plants in the same house, as well as to his Cucumbers. Dr. COOKE reported upon them as follows:—"I have examined carefully the Melon leaves sent me. They are certainly not affected with the new Melon disease, nor can I find any trace of mycelium in the tissues, or the least evidence of fungus attack. I am of opinion that the mishap is due to some external cause, like a sudden chill, and that there is nothing to be found which is capable of infecting other plants. In so far as the leaves sent to me are concerned, I find no evidence of internal disease, and cannot recommend the destruction of the plants; only their complete isolation may be prudent, so as to prevent communication with other Melon or Cucumber frames. Close attention may reveal the cause, but I cannot see why it should spread so rapidly. As a precaution I should pick off and burn diseased leaves; but, if it is really a disease of internal origin, although it does not at all resemble the bacteriosis of Cucurbits, the microscope fails to detect any mycelium or spores in the tissues, which confirms me that it is not an organic disease. I shall be interested to know if any discovery is made from external surroundings, but as these are unknown to me, I cannot offer any suggestions."

*Potato tuber disease (Fusarium solani, Mart.)*—Dr. COOKE also contributed the following: "A circumstance has occurred within the past few days which convinces me that we have a disease to contend with in stored Potatos which has not hitherto been estimated at its true importance. Not long since, some tubers were sent to the Committee, which, when cut, showed black blotches, and at the time I was inclined to think they might be caused by the ordinary Potato mildew running down the stems into the tubers; but the microscope failed to give satisfaction, and the inference remained in doubt. Since that time tubers have been sent, which, when cut, exhibited the same blackened blotches. In one instance this was supplemented by a great number of convex pinkish pustules on the outside of the tubers, mixed with tufts of white mould. These pustules were the external manifestations of a compact pink mould, which has long been known to develop itself upon Potato tubers, but the general impression has been that it was only a saprophyte, which flourished upon spots already decayed. Mr. WORTHINGTON SMITH intimated in 1884 that Fusisporium solani, as it was then called, was 'not peculiar to decaying Potatos,' but was a veritable disease of stored Potatos, and of this there can be no longer any doubt. The black internal blotches at length become permeated by mycelium, which produce the characteristic conidia wherever they reach the external air. The pustules are about the size of a split hemp seed, and sometimes larger, with a




William Miller

Gardeners' Chronicle, 1875 n.s. 3

The name of William Miller is well-known amongst gardeners. The fine samples of late Grapes Mr. Miller was in the habit of exhibiting a few years since from the new vineries at Combe Abbey, and to which he modestly alludes in the accompanying very complete autobiographical notice which he has obligingly sent us, will not yet be forgotten by those who take interest in Grape growing.

“I was born at Knockdow, in the parish of Inverchoalin, Argyleshire, on November 29, 1828. My father was then gardener to the late James Lamont, Esq., of Knockdow; at his death to his son Alexander, and latterly to his son James Lamont, Esq., the present proprietor. My father went to this place as gardener in 1821, and having served three generations, extending over a period of fifty-two years, he died on August 3, 1873, in his eighty-fifth year. My mother, who survived him only five months, died on January 13, 1874, in her eighty-fifth year. Mr. Lamont erected at his own cost a tombstone over their grave, with a suitable inscription, stating their age and the number of years they had served faithfully and honestly in the Lamont family. Such an instance of long servitude and good feeling between employer and employed should not be overlooked. My father was initiated into the profession of a gardener in the first place amongst the market gardeners of Glasgow; afterwards at Rosedoe, Dumbartonshire, the seat of Sir James Colquhoun; and at Kelvin Grove, now the fashionable West-end park of Glasgow, under the late Mr. Ninian Niven, afterwards of Kier Gardens, Perthshire.

I was educated at the parish school of Toward until I was fourteen years of age, when I was sent as dominie to teach two orphan grandchildren belonging to a wealthy sheep farmer in the neighbourhood. At the end of this service I was to enter a merchant's office in Glasgow, but this breaking down—for want of the necessary influence, I suppose—I was put to work under my father on the estate. My father at that time being general manager, I had great scope for observation, and in this way got early acquainted with the management of sheep and cattle, and fancied myself a very good shepherd.

Plantations of Larch, Scotch Fir, Spruce, Oak, &c., were being plentifully made at that time on this and other estates on the West Coast for purposes of shelter, timber, &c.: I had a famous opportunity of taking part in these operations. The late Mr. Lamont was a man of great taste, and would insist upon having the outline of plantations, drives and fences eye-sweet. In the working out of these curves I have followed my father many a day with an armful of pegs. Here I learned to form the Hogarth line of beauty, which I never forgot. When still a lad, Mr. Lamont was not slow to acknowledge my aptitude to form a good curve. At that age I could measure a piece of land with any one. When a piece of land was set out for planting I was frequently sent by my father to get it surveyed, and to work out the number of plants required of the different kinds with which to plant it. There were no rabbits there in those days, and young plantations soon got up, and the thinnings were made available for estate purposes. Thinning plantations in Scotland was always carefully and neatly attended to; so also the pruning of young trees, and old ones, too, when they had been neglected in their earlier period of growth. Every cut must indicate a thorough mastership in the handling of the tool used.

My elder brother, now at Clumber, who was at this time acting as foreman to my father in the gardens, left, and I was duly appointed to this charge. With the exception of a short time in spring, when a batch of men would be sent in to dig, and put in the general summer crops, I was mostly alone. Here I got initiated into the pruning and training of fruit trees, which has continued a favourite subject with me ever since; also the sowing of seeds by hand, the depth of drills, width apart, &c., for different seeds. This is a branch of gardening now almost overlooked by the coming race. The only glass at this place at that time was some Melon and Cucumber frames.

Mr. Lamont gave me to read Harrison on Fruit Trees, also Loudon’s Encyclopaedia, which latter work so fired me with the love of gardening that I was not long before I

began to feel that if I meant to be a good gardener I must get myself out into the world a bit to obtain further knowledge of the higher branches of the profession. After duly apprising my father and Mr. Lamont of my intentions, and obtaining their leave to go, I went after a place, and succeeded in getting one. From this time began the troubles and difficulties of my life, and which have been such as gardeners generally are the peculiar sport of.

My first place from home was at Erskine House, on the Clyde, the seat of Lord Blantyre. The veteran gardener at that time was Mr. George Shiels, a very superior man generally. He had the best walled garden at that time in the West of Scotland; and his fruit trees were in the best form of training and bearing that I have seen in any garden. Excellent Peaches were ripened on the open walls. Immediately on entry I got as a favour the management of the forcing houses, they chiefly consisted of Vine and Peach-houses, Cherries, Figs, and Vines were grown successfully on hot walls. The bothy here was a tolerably good one for those days. We each had a bed, although in the same apartment. In the evenings we read greedily, each paying for a pound of candles in turn. Our wages were not much, so they were easily taken care of. Here I commenced horticultural drawing, which I have pursued ever since with more or less success, having always made and worked to my own plans. In consequence of having the care of the fires, which were all smoke flues, I never went to bed very early; and this prolonged my hours of study for some time after the others had gone to bed — with one exception only, and this was our out-door foreman, who fancied that he had discovered the 'real clue' to find out perpetual motion. Often this poor fellow, when he came in from work, and had taken his tea, would quietly go to bed and sleep for a few hours; and when we had retired, and all was quiet he would get up, and in the lonely midnight hours pursue his study of perpetual motion.

At Erskine I only remained one year. On leaving I did not meet with a place to my mind, so I again put myself to school— this time entering myself for the winter at the Andersonian University of Glasgow. I entered as many classes as I thought I could manage. During my short stay here I improved my education much. For the further prosecution of my studies there I fell short of the one thing needful, so in spring a situation as journeyman gardener was obtained for me at Dysart House, under Mr. Laing, now the worthy nurseryman at Stanstead Park, Forest Hill. Shortly after my arrival at this place a vacancy occurred in the outdoor foremanship, to which I was appointed by Mr. Laing. I carried through this department for about a year satisfactorily, I believe, to Mr. Laing, and to my own great delight. One of the chief features of this place, which was a pleasant one, and neatly kept, was its Rhododendrons. My last year at Dysart was filled in as foreman of the houses. I was there at the time when Mr. Laing succeeded in flowering for the first time in this country Rhododendron Dalhousiae.

From this place I was sent by Mr. Laing to Mr. Fleming, then gardener to the Duke of Sutherland at Trentham. Here I encountered a wonderful change in the style of gardening, as compared with what I had been accustomed to in Scotland, to which style and practice I need not further allude here. Suffice it to say that during my two years' stay at Trentham I saw much practice which I booked and carried away, and I saw much also which I did not book but left behind. I was healthy and strong while there, for which there was much need. Whilst at Trentham I was sent three times to London with Mr. Fleming's collections of fruit—once to the Crystal Palace, when Mr. Fleming beat the late Mr. M'Ewen, of Arundel; once to Chiswick, when Mr. M'Ewen beat Mr. Fleming; and once again to the Regent's Park. During these visits to London I had drank deeply of gardening; and as it is said of those who once drink of the waters of the Nile, that they will live to do so again, it was my wish on these occasions that I might live some day to come back to London, and table my own fruit.

At the end of two years of Trentham practice, I was sent to Gowran Castle, Ireland, as head gardener to the late Viscount Clifden, where I remained four years. During my stay here my time was occupied in improving the grounds, which I took great interest in. At Gowran I had most to do with the Hon. Leopold Agar Ellis, brother to Lord Clifden, who took great interest in the improvement of the place. Figs and Pears ripened to great perfection on the open walls. I did a good deal in Pear grafting. I recollect once grafting a Pear fruit bud; the bud expanded, set, and grew into a good-sized fruit.

Some time in the year 1858 Mr. Fleming was promoted to the resident agency on the Trentham estate. Evidently he had formed a good opinion of me; for he sent for me from Ireland, with a view to my filling his shoes in the celebrated gardens of Trentham. I was for this purpose brought before the late Duchess of Sutherland. Whether it was from my Irish brogue, which I had caught strongly, or perhaps from my awkwardness, I cannot tell, but her Grace disapproved of me, so I went back to Ireland a disappointed man. The more fortunate, or perhaps unfortunate, man to receive the appointment was Mr. Wren, then gardener to the Duke of Leinster, at Carton. He held the situation a few months and then went off to New Zealand, where I am informed he is doing well, and where also most likely I should have gone had I been appointed to Trentham at that time.

In the autumn of 1859 Mr. Fleming offered me, and I accepted, the bailiffship on the Home Farm at Trentham. I left Ireland and my friends there with a very sad heart, and have often repented most bitterly that ever I left the service of such a kind and indulgent family. I should perhaps mention here that the mother of Lord Clifden was Lady Dover, sister to the Duchess of Sutherland, and therefore, although at Trentham, I was still connected with the family. I accepted this situation with the hope that it might ultimately turn out to my advantage, but I was not long there before I found that my occupation was likely to prove a very unpleasant and a very uncomfortable one, and so it proved as time wore on. For the first time in my life I began to feel that in these situations a man's duties are not the most difficult things he has to contend with; but temper, whispers, and jealousies often beat the most assiduous and devoted of men; and these were the hidden rocks which compelled me to weigh anchor from Trentham. However, during my time as bailiff at Trentham I bought, in the rough, a good deal of valuable experience, which has since often stood me in good stead.

I left Trentham in the spring of 1861, and obtained a recommendation to work with a spade in the new gardens then forming for the Royal Horticultural Society at South Kensington. I worked with great pleasure in these gardens for about three months, when, through the kindness of Mr. Eyles, and my earlier friends, the Hon. Leopold Agar Ellis, then M.P. for Co. Kilkenny, and Mr. Fleming, I obtained my present situation at Combe Abbey, near Coventry. One day, when working in the Society's new gardens, an incident occurred which, perhaps, you will allow me to relate. It was at dinner time, and I was in conversation with a young man named Macintosh, who formerly also lived at Dysart with my old master, Mr. Laing. He knew several of Mr. Laing's men whom I knew. Amongst them he told me there was one named Miller, who got on well; that from Dysart he went to Trentham, from Trentham to Ireland, and again back to Trentham, to some position on the estate. ‘Ah!’ added he, ‘some men are fortunate; Miller is now a made man;’ asking me in the same breath, ‘Did you know him?’ I replied in the affirmative that I knew Miller well, and that all he had said respecting his movements was quite true. On this reply he looked me hard in the face, and asked if I was the man; and when I told him I was, he seemed for the moment dumbfoundered. Adversities bring together strange bedfellows, and such was the case with Macintosh and me.

In the late Earl of Craven I had a most kind and liberal employer. He was a man of great taste, fond of horticulture and the improvement of his estate, and he knew trees well. My first duties here were to erect new forcing-houses, of which much has already been written in the pages of this paper, and other contemporaries. We then commenced the

improvements in the pleasure grounds, which we have been carrying on year by year ever since—transplanting many large trees, and introducing many young Conifers and other shrubs. At the request of the late Earl I formed some extensive green drives, and by clearing away trees and hedgerows added largely to the views and extent of the park.

I have not been without my successes as a fruit grower, but of this the gardening public are the better judges. Suffice it to say, that during the years 1867, 1868, 1869, at the Royal Botanic Gardens, Regent's Park, I carried off successively the gold medals for collections of fruit. I have not exhibited lately.

I have much to be grateful for in the confidence reposed in, and the kindness shown to me by the present Earl and Countess of Craven, and of which I have had many gratifying proofs. By their desire we are always adding something towards the improvement and embellishment of the gardens and grounds."

To this interesting sketch of Mr. Miller's horticultural career we may briefly add, that amongst his contributions to our pages, which excited some interest at the time of their publication, were his papers on the bottom heating of Vine borders, on Vine extension, and on the root fungus question, A paper on deep cultivation, which appeared in the first number of our present series, is eminently practical, and calculated to awaken thought.

### Nurserymen's Exhibits.

The nurserymen provided a very bright display with their exhibits. Messrs. R. Veitch & Son, Exeter, received an Award of Merit for Rhododendron Dr. Stocker. They also staged Azalea obtusa alba, A. Marie Louise, Prunus spinosa flore pleno, Grevillea sulphurea, G. ornithopoda, Brachysema Drummondii, Kennedya rubicunda, as well as rock plants and Hippeastrums.

The Devon Rosery, Torquay, showed a fine collection of pot Roses, including the varieties Mollie Sharman Crawford, John Cuff, Dorothy Page Roberts, and Elizabeth Barnes.

Mr. G. Reuthe, Keston, Kent, exhibited an interesting assortment of Alpines and received an Award of Merit and Cultural Commendation for Calypso borealis.

Messrs. Barr & Sons, King Street, Covent Garden, London, provided a superb show of Daffodils, including the varieties Mrs. G. H. Barr, Peter Barr, Fair Maiden, Horace, The Bride, Weardale Perfection, Mountain Maid, Katharine Spurrell, Monarch, Albatross, Resolute, Buccaneer, and Admiral Togo.

Messrs. Cartwright & Goodwin also showed a very fine selection of Daffodils, amongst which were noticed Goldseeker, Yellowhammer, Homespun, Outpost, and Alice Knights.

Messrs. Cutbush & Son staged Adonis amurensis flore pleno, Tulipa pulchella, Anemone vernalis, Ranunculus amplexicaulis, and many other spring flowers.

Messrs. Heath & Sons, Cheltenham, exhibited Saxifrages, Glaucium flavum tricolor and Lathyrus cyaneus.

A Cultural Commendation was given to Mr. T. H. Archer Hind for varieties of Helleborus.

Mr. J. H. Watson showed a collection of Acacias grown in the open; they included A. hastulata, A. Drummondii, A. acinacea, A. ovata, A. armata, A. armata angustifolia, A. diffusa, A. floribunda, A. melanoxylon, A leprosa, A. hæmatophylla, A. longifolia mucronata, A longifolia magnifica, A. ulicina, A. verticillata, A. Riceana, and A. juniperina.

## DEVON DAFFODIL AND SPRING FLOWER.

April 20.—A very successful show, under the auspices of the above society, was held in the Guildhall, Plymouth, on this date. The entries, both in the open classes and those restricted to growers in Devonshire, were numerous, and the exhibits generally were of a high order of merit. In judging the Daffodils the new classification was adopted.

The following exhibitors were prominent prize winners in the classes for Narcissi:—Mrs. Tyacke, Miss Clarice Vivian, Messrs. Pope & Son, and Mrs. Christy.

In the class for 12 hardy spring flowers, the 1st prize was won by Mr. H. W. Grigg with a fine stand, which contained Leucojum æstivum, Fritillaria imperialis, F. verticillata, F. obliqua, F. meleagris alba, Triteleia uniflora, Iris bucharica, Scilla italica, Muscari conicum album, Anemone Robinsoniana, Erythronium giganteum, and Tulipa florentina major.

The best six bunches of Anemones were shown by Mr. Soltau-Symons, and the best six bunches of Anemone fulgens by Mrs. Coryton.

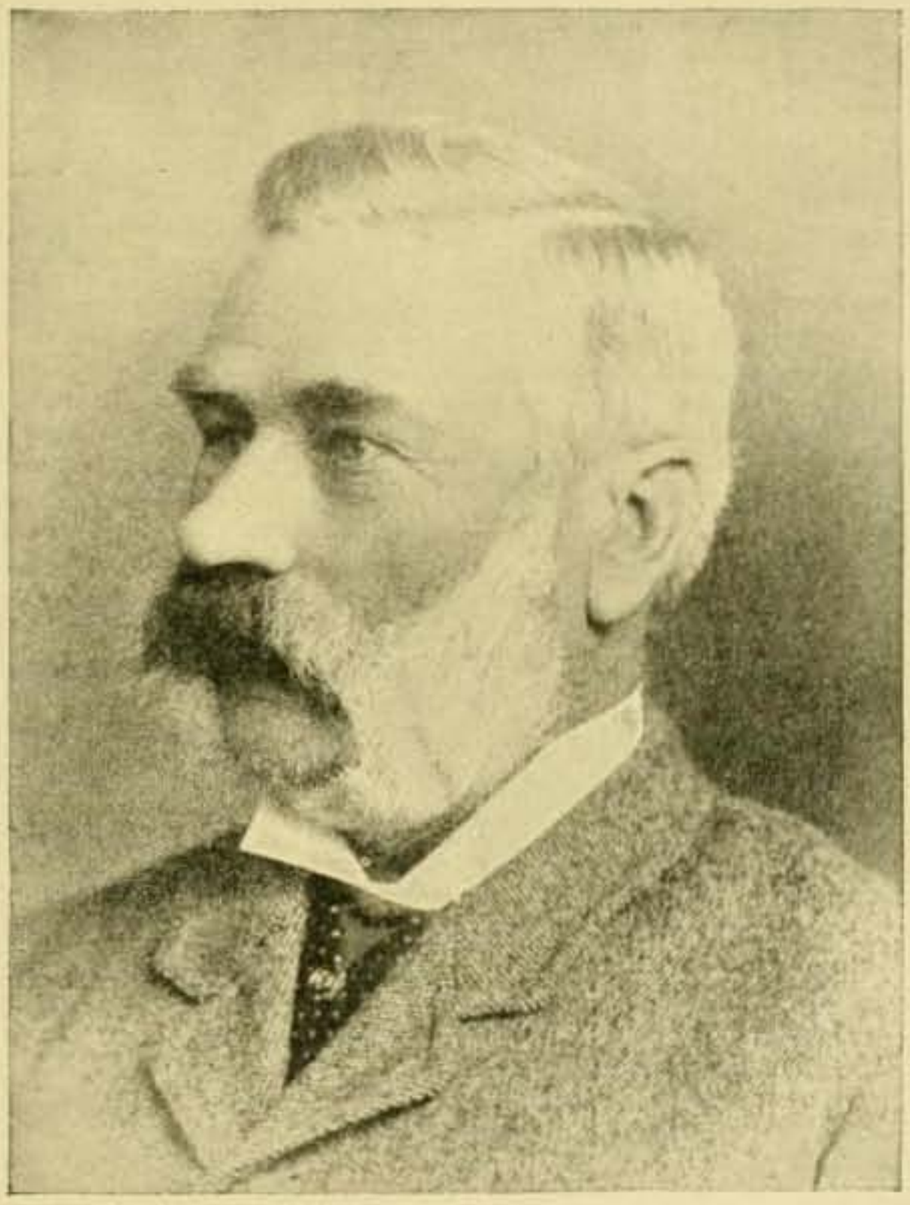
In the classes reserved for residents in Devonshire the following exhibitors were successful in obtaining 1st prizes:—Mr. Soltau-Symons, Mrs. Gage-Hodge, Mrs. Parlby, Miss Hinchcliff, Miss G. Hawker, Hon. Mrs. Colborne, Mr. T. Batson, Mr. H. G. Hawker, Mrs. Duke Yonge, Mrs. J. J. Mallock, Mr. R. Watts, Mrs. Bainbridge, and Mrs. A. Froude.

Messrs. Robert Veitch & Son, Exeter, showed a fine collection of plants, among which were Lotus peliorhynchus, Eriostemon neriifolius, Correa cardinalis, Exochorda Albertii macrantha, Acacia Drummondii, A. armata, Gerbera Jamesonii, Prunus triloba, Pimelea spectabilis, Magnolia stellata, Hibbertia dentata, and numerous rock plants. The Devon Rosery, Torquay, staged a splendid selection of pot Roses in full bloom, embracing many of the newer varieties.

Messrs. Barr & Sons, King Street, Covent Garden, London, arranged a display of Daffodils, amongst which were many new varieties. Messrs. John Webber & Sons exhibited a collection of miscellaneous plants.

# Obituary.

**William Miller.**—The death of William Miller, who for upwards of 40 years was gardener to the Earls of Craven, at Combe Abbey, Warwickshire, occurred on the 16th inst. at Berkswell. Miller belonged to an old school of Scotch gardeners who received their early tuition under Fleming, at Trentham, in Staffordshire. He was born at Knockdow, in the parish of Inderchoalin, Argyleshire, on November 29, 1828. His father was then gardener to James Lamont, of Knockdow, having commenced service in this family as a gardener in 1821. He served three generations, extending over a period of 52 years, and died on August 3, 1873, in his 85th year. In an autobiographical note, which William Miller contributed to these pages in the year 1875, he states that he was educated at the parish school, Toward, until he was 14 years of age, when he was sent to teach two orphan granchildren belonging to a wealthy sheep farmer in the neighbourhood. At the end of this service he was put to work under his father, who was then manager on the Lamont estate, already mentioned.



THE LATE WILLIAM MILLER.

Plantations of Larch, Scotch Fir, Spruce and Oak were being plentifully made at that time on this and other estates on the west coast, for purposes of shelter and timber. Although still a lad, Miller could measure land. When a piece of land was set out for planting, he was frequently sent to survey it, and to work out the number of plants that would be required. Subsequently Miller was appointed foreman in the Lamont gardens in succession to his elder brother John. After serving for a time in this capacity, he entered the gardens at Erskine House, on the Clyde, the seat of Lord Blantyre. The gardener at that time was George Shiels. He had the best walled garden in the West of Scotland. The bothy at Erskine was a good one for those days, and in the evening the young men read assiduously. It was here that Miller commenced horticultural drawing, which he pursued ever afterwards. How he succeeded may be seen in the flower garden which he designed at Combe Abbey, and in various designs for flower gardens which he has contributed to this journal, and to the Paris Exhibition of 1900. He only remained at Erskine for one year, and then, having no situation to go to of a suitable character, he entered for the winter the Andersonian University at Glasgow. In the following spring he went as journeyman to Dysart House, where Mr. John Laing, the founder of the nursery of John Laing and Sons, Forest Hill, was then gardener. During the time Miller was at Erskine, John Laing succeeded in flowering Rhododendron Dalhousiæ for the first time in this country. It was John Laing who sent Miller to Trentham. At the end of two years he left Trentham for Gowran Castle, Ireland, to become head gardener to Viscount Clifden, where he remained four years. In 1859, Fleming, of Trentham, sent for Miller to take up the bailiffship on the Trentham home farm. Miller wrote afterwards that he often repented most bitterly that ever he left the service of such a kind and indulgent family. The post at Trentham proved to be hedged with difficulties of a personal rather than professional character. Leaving Trentham again in the spring of 1861, he worked under Mr. Eyles in the new gardens of the Royal Horticultural Society at South Kensington for three months, and then, with the help of several friends, including Fleming, of Trentham, he obtained an appointment as head gardener at Combe Abbey. The late Earl of Craven was a man of great taste, fond of horticulture and of improving his estate; he possessed a good knowledge of trees. Miller's first duty at Combe was to erect new forcing-houses. He afterwards commenced a series of improvements in the pleasure grounds, and this work was continued for many years. Large trees were transplanted, and many Conifers and other new trees and shrubs were planted. Extensive green drives were formed and trees and hedgerows were cleared away in order to open up views and increase the interest of the pleasure grounds and park. In the 'sixties Miller was a frequent exhibitor at the competitive horticultural exhibitions. Some of the best shows in this country were then held at the Royal Botanic Society's Gardens, Regent's Park. In 1867, 1868, and 1869 Miller won successively the gold medals offered by this Society for the best collections of fruit.

During a week-end visit the writer spent with Miller about ten years ago at Combe, he related a great many interesting details connected with his service there. He could look up to Poplars 60 feet in height which he had planted. He could point to the most interesting flower garden and say that it had been formed not only by himself, but from plans which he had designed. The flower garden portrayed an idealistic tree growing from an ornamental vase, nearest the house, and spreading in fanciful curves over the space the garden covers, some of the branches terminating in little beds, similar in form to the Shamrock leaf; and others resemble the flower-head of a Thistle. The vase and its ornamentation was planted in semi-carpet-bedding style, and the branches of the trees were like so much tracery, the beds being only from three-quarters of a foot to about 1½ feet in width. The planting of such beds can only suitably be done with neat-habited plants, and Pelargoniums and other showy species were most effective. By the sides of this tracery there were two long beds in which a very bright display was made by hardy perennial and summer-bedding plants, disposed in a mixed pincushion system, thus affording a feature in the same view of entirely different style.

In every direction the features at Combe had been formed or developed by Miller. He was not only a practical gardener but a student as well. Whenever he could obtain leisure he might be found in his room studying works upon horticulture or botany, or drawing new plans. He studied British botany closely, and in this respect the flora around the large and magnificent lake at Combe offered considerable facilities.

A few years ago Miller resigned his position at Combe. Being well over 70 years of age at the time, he might reasonably have claimed some rest after an exceedingly energetic and busy life, but instead he preferred to commence a business and nursery at Berkswell, near Coventry,

where he has since practised as a landscape gardener. For 40 years past Miller has been a frequent and valued correspondent to this journal. His brother John, who will be remembered as gardener at Worksop Manor, Nottinghamshire, and Ruxley Lodge, Surrey, died in 1902 at the age of 80 years. John had four sons, who adopted gardening as a profession. William leaves several sons, but all have selected other occupations. One of them, Mr. Hugh Miller, a civil engineer, contributed several articles on the use of motors in horticulture to this journal in the spring of last year.

**SAMUEL LAIRD.**—The death of this gardener occurred at Arbroath. For nearly two years deceased had been in indifferent health, but it was only within the past month or two that his illness took a serious turn. Mr. Laird was for 23 years head gardener to the late Earl of Southesk at Kinnaird Castle, and he had held a similar position at Dunninald Castle. Nine years ago he commenced business as a seedsman and fruiterer in Arbroath. Mr. Laird, who was 68 years of age, was a native of Newcastle, Co. Down, Ireland. He leaves a widow and family.

## Answers to Correspondents

*** *The Editor will be glad to receive, for consideration, large photographs of horticultural subjects, suitable for forming Supplementary Illustrations to this Journal.*

EDITOR AND PUBLISHER.—Our Correspondents would obviate delay in obtaining answers to their communications, and save us much time and trouble, if they would kindly observe the notice printed weekly to the effect that all letters relating to financial matters and to advertisements should be addressed to the PUBLISHER; and that all communications intended for publication, or referring to the Literary department, and all plants to be named, should be directed to the EDITOR. The two departments, Publishing and Editorial, are distinct, and much unnecessary delay and confusion arise when letters are misdirected.

ALLEGED MISREPRESENTATION: *Sussex.* You will have to prove misrepresentation as to the character of the place and that you were thereby induced to take the situation. Subject to this, you should succeed in obtaining damages at least sufficient to cover the expenses of your removal both going and coming, assuming that you decide not to stay. A jury might give you even more than this. You should get a local solicitor to draw the claim and work up the evidence.

ARAUCARIA: *C. J. L.* It has not been determined if the plants were grown in pots, and the roots, therefore, injured by the severe restriction. This is scarcely a likely explanation of the failure of the poor specimens.

BLACK CURRANT BUD-MITE: *W. P. R.* Mr. A. H. Pearson's remedy, which he described in communications published in this journal on May 21, 1904, p. 298, and May 13, 1905, is as follows:—Spray the bushes at intervals of 10 days during May and June with a mixture of soft soap, Quassia, and water, at the strength of 2 ounces of soft soap and 4 ounces of Quassia to each gallon of water, applied by means of the Knapsack sprayer (Vermorel's). Bushes that were slightly affected before the spraying will probably be found to be quite free from the pest at the end of the season, but if they are not, Mr. Pearson stated they will certainly be clean after such treatment in two seasons. In the autumn, when the leaves have fallen, the bushes should be very carefully inspected, and, if any big buds are found, remove them to the fire.

BLUE FLOWER: *B. L.* The Muscari would be the better plant both as regards its permanent character, and the class of soil you mention. The plant is by no means fastidious, but owing to its free increase by means of offsets should be planted thinly if desired to form a permanent group. We are assuming that you require the plant to grow alone and not in actual association with the Chionodoxa. It would not be suited for such an association. Should you require a third subject you might with advantage select Hyacinthus azureus, a pretty plant with turquoise-blue flowers that appear in February or early in March.

BLUE PRIMROSES: *W. H. H.* There appears to be nothing remarkable in the flowers received, but they were so withered on arrival that it is impossible to see exactly what they have been.

CAMELLIA LEAVES SPOTTED: *J. D. C.* There is no disease present in the foliage; the injury is due to some external cause, probably scorching. It is not advisable to plant Camellias against a wall; the radiation of heat from the bricks dries up the young shoots, and in time kills them.

COMPENSATION FOR IMPROVEMENTS: *Northern.* (1) The amount of compensation to be awarded under the Agricultural Holdings Act, 1908, is "such a sum as fairly represents the value of the improvement to an incoming tenant," and such sum would be fixed by arbitration under the Act quite independently of whether there is a new tenant forthcoming or not. (2) The tenant, on leaving can claim compensation for "repairs to buildings necessary for the proper cultivation or working of the holding other than repairs which he is himself under an obligation to execute, provided that the tenant, before beginning to execute any such repairs, shall give to the landlord notice in writing of his intention, together with particulars of such repairs, and shall not execute the repairs unless the landlord fails to execute them within a reasonable time after receiving such notice." We certainly do not consider that the tenant could recover the cost of glass broken during his tenancy. (3 )Ask a local solicitor to arrange a mortgage for you.

CORRECTION.—Messrs. R. B. Laird & Sons, Ltd., inform us that our reporter was in error in stating that a Silver-gilt Medal was awarded for their exhibit at the Edinburgh show. The exhibit was entered on the understanding that no award would be made.

CROCUS: *Mrs. S. E.* One of the most effectual means of keeping sparrows from destroying Crocus flowers is to stretch black cotton across small sticks driven into the ground at various intervals about the Crocuses. The cotton should be 4 to 6 inches above the flowers, and form an almost invisible network above them. The birds coming in contact with the cotton, are thus frightened and fly away. Poison is the other alternative. It is well known that the Dutch yellow Crocus is sterile, but its definite history is unknown. It is supposed to be derived from C. aureus, a native of Southeastern Europe. C. aureus is a smaller and more refined flower than the common yellow Crocus, and it produces seeds.

CUCUMBERS: *C. V. D., Holland.* The variety referred to on p. 234 is known in this country as Butcher's Disease-resisting Cucumber.

CYCLAMEN: *A. S.* Cyclamen persicum is stated to have been first cultivated in Europe at Lille in 1731, having been introduced from Persia. There is, however, doubt as to its origin, because the plant is not found wild in Persia; it probably came originally from Syria. The florist's Cyclamen is a cultivated form of C. latifolium, a native of Syria. The first authority for the name C. persicum is Miller, in his *Gardeners' Dictionary*, 1768.

EUONYMUS SHOOTS KILLED: *E. W.* The damage has been caused by frost; the injury is common in most parts of the country this season, even in suburban gardens around London.

FORESTRY PERIODICAL: *T. W. C.* There is no such publication as you require. The book you mention will be of service. *Tree and Shrub Culture*, by William Dallimore, is a cheap but valuable work on the subject. It may be obtained from our publishing department.

MARGUERITE LEAF-MINER: *Constant Reader.* The foliage you send is attacked by the Marguerite leaf-miner. The female punctures the leaves and deposits her eggs in the interior. Directly the young caterpillars are hatched, they commence to feed upon the leaves, and tunnel about between the two surfaces in their quest. Subsequently the caterpillar becomes a chrysalis, thus completing the cycle. Preventive measures would include the spraying of the plants with quassia extract or other distasteful liquid, in order to prevent the females from depositing their eggs upon the leaves. When plants have been so sprayed at intervals, it has been found to be very effective. Remove badly-affected leaves and burn them.

MARKET MEASURES: *Correspondent.* A bundle of Asparagus contains, approximately, 150 shoots; a bag of green vegetables weighs 40 lbs. Carrots are not packed in pads, but are sold in bundles, containing 12 roots. A tally of Cabbages is 60 heads. Horse-radish is sold in bunches of 12 sticks. Turnips are bunched, 12 to 15 roots forming a bunch. The sieve varies; it is practically equivalent to one bushel. In weight it may be estimated at 40 to 50 lbs., according to the produce.

NAMES OF FLOWERS, FRUITS AND PLANTS.—We are anxious to oblige correspondents as far as we consistently can, but they must bear in mind that it is no part of our duty to our subscribers to name either flowers or fruits. Such work entails considerable outlay, both of time and money, and cannot be allowed to disorganise the preparations for the weekly issue, or to encroach upon time required for the conduct of the paper. Correspondents should never send more than six plants or fruits at one time: they should be very careful to pack and label them properly, to give every information as to the county the fruits are grown in, and to send ripe, or nearly ripe, specimens which show the character of the variety. By neglecting these precautions correspondents add greatly to our labour, and run the risk of delay and incorrect determinations. *Correspondents not answered in one issue are requested to be so good as to consult the following numbers.*

**PLANTS:** *Foreman.* Bifrenaria Harrisoniæ, often known in gardens as Lycaste Harrisoniæ.—*F. F.* A good type of Oncidium Marshallianum.—*T. H. O.* 1, Brassia brachiata; 2, Catasetum maculatum; 3, Oncidium flexuosum; 4, O. sphacelatum.—*T. T.* 1, Pulmonaria officinalis; 2, Valeriana Phu aurea; 3, Nephrolepis Todeaoides; 4, Adiantum decorum; 5, Selaginella Wildenovii; 6, Asplenium bulbiferum.—*Anxious.* 1, Daphne Mezereum; 2, probably Acacia Farnesiana; 3, Dracæna Sanderiana; 4, Begonia subpeltata; 5, B. metallica.—*A. G.* Dendrobium heterocarpum (aureum).—*S. E. L.* 1, Mesembryanthemum blandum; 2, M. inclaudens; 4, M. Brownei; 5, Teucrium fruticans.—*Reader.* 1, Leedsii type; 2, Bicolor Empress; 3, Emperor; 4, Incomparabilis Queen Bess; 5, apparently one of the discarded varieties of the incomparabilis type; 6, probably a poor bloom of the variety Sir Watkin.

PERENNIAL BUCKWHEAT: *T. W. C.* The only perennial species of the Buckwheat family in cultivation is Fagopyrum cymosum (Beechwheat). It is a strong growing plant, reaching to a height of from 5 to 6 feet, and is a native of the Himalayas. Both the other species, F. esculentum and F. tataricum, are annuals or biennials.

TO PREVENT BEES SWARMING: *R. O. F.* The following methods will discourage swarming, but we do not know of any certain means of prevention:—(1) By the caging of the queen in a "pipe cover" cage, afterwards examining the hive and cutting out all queen cells. This latter operation needs care, for often one cell is missed and all one's calculations are upset. After about eight days examine the hive for queen cells and release the queen. (2) Some give increased space by extracting from the brood combs, and if the machine be not worked too swiftly, the brood will not be injured. (3) The removal of frames containing honey and replacing frames fitted with full sheets of foundation. This is a valuable device, for the queen requires more breeding space, and this provides the requisite room. (4) Tiering up too rapidly will cause swarming, but oftener than not more space is not allowed in time, and the bees, feeling cramped, are induced to swarm. Where very large apiaries exist, beekeepers often omit the use of the queen excluder, so the queen roams at will over the whole hive, if so disposed, and the number of swarms does not exceed two or three per cent.

**Communications Received.**—Captain D. S.—W. E. G.—R. I. L.—R. L. C.—T. H.—A. C. B.—Bot. Soc. of Edinburgh—S. A.—W. A. C.—Croydon Hort. Soc.—D. & Co.—F. T.—G. M.—J. E.—J. G. W.—T. L.—H. L. & Co.—J. V. & Sons—E. R.—Nat. Rose Soc.—A. O. W.—Roy. Meteorological Soc.—H. F., Port Elizabeth—S. Pickering—A. G.—F. W. C.—H. W. W.—J. M.—C. T. D.—J. D. G.—G. V. W.—E. G.—Ed. A., Paris.

*For Market Reports see page* xi

**MILLER** Matthew Henry of 52 Wood-street Leek Staffordshire died 25 October 1909 Probate **Lichfield** 7 December to Percy Box Miller and Harry Box Miller newspaper proprietors. Effects £1026 5s. 6d.

**MILLER** Peter of 22 Queen-street Craigie Perthshire died 13 May 1909 Administration (with Will) **London** 27 October to Catherine Miller widow. Effects £547 7s.

**MILLER** Richard of Friday Bridge Elm Cambridgeshire gardener died 24 May 1909 Probate **Peterborough** 28 June to Elizabeth Miller widow and Robert Bull grocer. Effects £229 0s. 4d.

**MILLER** Richard of West End Farm Aspatria Cumberland farmer died 29 June 1909 Probate **Carlisle** 23 August to Richard Ferguson farmer. Effects £2013 6s. 2d.

**MILLER** Richard of Land Brow Top Westward Cumberland retired farmer died 2 June 1909 Probate **Carlisle** 22 October to Elizabeth Miller and Mary Miller spinsters. Effects £195 3s.

**MILLER** Robert of 92 Glengall-road Willesden Middlesex died 16 March 1909 Probate **London** 2 April to Alice Maud Mary Miller widow. Effects £1063 16s.

**MILLER** Robert of the Laurels 49 Woodgrange-road Forest Gate Essex died 28 April 1909 Probate **London** 14 June to Richard Purdie retired merchant and Andrew Macdougall Sneddon solicitor. Effects £8009 4s. Resworn £314 15s.

**MILLER** Robert Mitchell of Frankfield Kirkcaldy died 26 July 1909 at Edinburgh Confirmation of John Miller stock-broker . Sealed **London** 2 October.

**MILLER** Sarah Jane of Richmond House Richmond-road Swansea Glamorganshire died 9 December 1908 Probate **London** 12 January to Charles Williams works foreman Christopher Gorvin gentleman and Lawrence Richards solicitor. Effects £370 9s. 11d. Resworn £6880 9s. 6d.

**MILLER** Sophia Irene of Freshford Villa Richmond Hill Clifton Bristol (wife of John Miller) died 27 February 1909 Probate **Bristol** 26 April to John Miller solicitor. Effects £14116 1s. 11d.

**MILLER** Thamar of Carysford-road Stoke Newington Middlesex widow died 8 June 1908 Administration **London** 5 January to John Walter Homersham gentleman. Effects £16 4s. 8d.

**MILLER** Thomas of 5 Royal-circus Edinburgh died 7 November 1908 Confirmation of Gerard Lake Crole K.C. James Barty and Alexander Boyd Barty law agents. Sealed **London** 3 March.

**MILLER** Thomas of 59 Monday-street Newcastle-upon-Tyne retired miner died 13 February 1909 Probate **Newcastle-upon-Tyne** 9 March to John Bailey curator of museum. Effects £2072 2s. 9d. Resworn £2202 3s. 1d.

**MILLER** Thomas of 65 Union-street Cattle Market Chorley Lancashire died 17 February 1909 Probate **London** 13 March to Mary Wilkins (wife of William Wilkins) William Harrison butcher and Abel Smith bootmaker. Effects £862 6s. 9d.

**MILLER** Thomas of Henry-street Lytham Lancashire joiner and builder died 6 March 1909 Administration **Lancaster** 7 April to Sarah Miller widow. Effects £1163 8s. Further grant February 1910.

**MILLER** Thomas of 33 St. Ebbe-street Oxford clothier died 13 May 1909 Probate **Oxford** 28 May to Sarah Thomasin Miller widow. Effects £2008 0s. 8d.

**MILLER** Thomas of Alkerton Oxfordshire died 26 May 1900 Administration (with Will) **London** 22 June to Ethel Mary Miller widow. Effects £587 10s. Former grant July 1900.

**MILLER** Thomas of Laurel Farm Doddington Sittingbourne Kent retired farm bailiff died 18 October 1909 Probate **Canterbury** 8 November to Ernest Alfred Bensted post-master. Effects £86 2s. 4d.

**MILLER** Thomas of Bells Place Bedlington Northumberland marine store dealer died 27 September 1909 Probate **Newcastle-upon-Tyne** 16 December to Mary Jane Miller widow. Effects £1144 17s. 9d.

**MILLER** Thomas Robert of Gothic Villa 4 Birkbeck-road Acton Middlesex died 11 January 1909 Probate **London** 27 January to Isabella Holford Miller widow William Charles Hillier licensed victualler and Henry John Holford retired wheelwright. Effects £790 19s. 5d.

**MILLER** Walter Samuel of 141 Choumert-road Peckham Surrey died 19 January 1909 Probate **London** 19 February to Florence Eleanor Lucas (wife of Henry Lucas). Effects £1074 10s. 8d.

**MILLER** William of 16 Gellatly-road New Cross Kent died 18 January 1909 Probate **London** 5 February to Francis John Harris Palmer clerk and Benjamin Charles Dexter architect. Effects £872 14s. 8d.

**MILLER** William of Lytham Lancashire joiner died 14 November 1867 Administration (with Will) **Lancaster** 8 June to Sarah Miller widow. Effects £1673 6s. 6d. Former grant February 1868. Further grant February 1910.

**MILLER** William of Berkswell House Berkswell Warwickshire gentleman died 16 April 1909 Probate **Birmingham** 14 June to Joseph Phillips land surveyor and Charles Augustus Kirby solicitor. Effects £2359 14s. 2d. Resworn £3809 14s. 2d.

**MILLER** William of Wootton Fitzpaine Dorsetshire died 29 October 1909 Probate **London** 4 December to John Miller dairyman and George Miller farmer. Effects £889 6s. 7d.

**MILLER** reverend William Sanderson of Whatcote Rectory Warwickshire clerk died 30 April 1909 Probate **London** 3 August to Rosamond Miller widow. Effects £883 6s. 9d.

**MILLET** Elizabeth of Wellington-terrace Dunstable Bedfordshire spinster died 4 January 1909 Probate **London** 30 January to Mary Elizabeth Malden widow and Harry Rose dentist. Effects £236 14s. 7d.

**MILLETT** Elizabeth of Alexandra Villa Hillbrow-road Esher Surrey (wife of Thomas Millett) died 16 June 1909 Administration **London** 1 July to the said Thomas Millett pensioner. Effects £105.

**MILLETT** Henry Charles of the Vale Wroxall Isle of Wight died 20 June 1909 Probate **London** 4 October to Percy Millett bank clerk and the Public Trustee. Effects £4502 19s. 5d. Resworn £3557 19s. 2d.

**MILLETT** Juliet Anne of All Saints Rectory Halesworth Suffolk spinster died 21 January 1909 Administration (with Will) **Ipswich** 25 February to the reverend Horatio Millett clerk. Effects £196 7s. 3d.

**MILLHAM** Sarah Ann of 13 Ravensden-street Kennington Surrey (wife of Edward Millham) died 3 November 1908 at the London County Asylum Claybury Woodford Essex Probate **London** 7 January to the said Edward Millham police pensioner. Effects £432 16s. 3d.

**MILLHOUSE** Elizabeth of 2 Gladstone-villas Hemel Hempstead Hertfordshire widow died 26 May 1909 Probate **London** 31 July to Adam Joseph Chennells grocer and George Palmer agent. Effects £1515 10s. 10d.

**MILLHOUSE** Fanny of Addington House 64 Pelham-road Gravesend Kent widow died 25 October 1909 Probate **London** 9 December to George Nevill Huntly chemist and Walter Egerton Chancellor solicitor. Effects £8955 13s. 3d.

## FAMOUS GARDENERS AT HOME.

No. 75.—Mr. M. E. MILLS, at the GARDENS, COOMBE HOUSE, CROYDON.

NOT only as a practical gardener, but also as an exhibitor, a judge at shows, and a lecturer, Mr. M. E. Mills is well known in the horticultural world. Most of his attention is, of course, devoted to the care of his gardens at Coombe House, and in addition to this he has the management of the whole of Mr. Frank Lloyd's estate of a hundred and six acres. This has just, by the way, been diminished, owing to Mr. Lloyd's generous gift of a recreation ground of thirty acres to the borough of Croydon.

Mr. M. E. Mills.

Coombe House itself is situated in the parish of Shirley, and, standing on rising ground, is quite one of the most charming residences in the neighbourhood. As Mr. Mills pointed out to me soon after my arrival, it enjoys also all the advantages of picturesque surroundings. The first thing that strikes one on entering the gardens is a group of magnificent Cedars of Lebanon on the lawn, within a short distance of the mansion.

"The dimensions of these Cedars," said Mr. Mills, "are remarkable. The circumference of the stem of one, four feet from the ground, is sixteen and a-half feet; and the branches cover a radius of seventy-eight yards. The middle specimen is larger, the stem, four feet from the ground, measuring nineteen and a-half feet, and the branches covering ninety-four yards. The third tree is fifteen and a-half feet round the stem at the same height, and it covers ninety-two yards. I may say that the estate throughout is finely wooded, there are some splendid Beeches in the Park, and in the shrubberies there are many pretty specimen Conifers. One of these carries very large canes, measuring fourteen to sixteen inches in length. In character of foliage, the needles represent the Weymouth Pine."

"I see that there are creepers on the house itself?"

"Yes, it is partly covered with creepers, amongst which is a very fine specimen of Magnolia grandiflora, which produces an abundance of flower annually. There is also a Pomegranate two hundred years old. Speaking of creepers, a wall measuring forty yards in length is devoted to Wistaria sinensis, which is trained horizontally. At the foot are grown Aubrietias, which flower at the same time. Crimson Ramblers cover an arch with a span of thirteen feet by sixteen feet. You can imagine the wealth of flowers which is derived from this."

"You go in extensively also for herbaceous borders?"

"We have eight borders, four of which are twenty feet wide, and they give us a succession of hardy flowers right through from April to October. You can form an idea of the quantity of flowers when I tell you that last year we cut three large cartloads for different harvest festivals at the churches."

"Do you care to mention the names of a dozen good hardy herbaceous flowering plants for exhibition in June and July?"

"With pleasure. Clematis erecta, Galega officinalis albiflora, Gaillardia maximus, Delphinium Lord Kitchener, Campanula persiciflora, Echinops ruthenicus, Erigeron speciosus, Hesperis, Watsonalis alba plena, Lilium candidum, Spiræa aruncus, Thalictrum aquilegifolium, Lychnis viscaria splendens plena. These are all of easy culture, and sure to flower. We have also a very large bed of Chinese Imperial Pæonies, which produced three thousand five hundred flowers last year. The number of plants is one hundred and ten, and they include the very best varieties."

"The herbaceous plants," continued Mr. Mills, "include a fine sport of Eryngium amethystinum, the only plant in this country. It is grown in one of the borders, and last season I got stock from it—four little plants—for the first time."

"How long has it been out?"

"Six years. It is the finest herbaceous plant we have. Last season it had nine spikes of flower on it. The stems of the leaves are grey, and every leaf is edged with a brilliant gold border. The whole flower-stem has five colours—gold, blue, white, green, and grey."

"The conservatory, I judge, has recently been added?"

"Since Mr. Lloyd bought the estate. It is built entirely of teak. I have also planted the spring garden out in Mr. Lloyd's time. I have had a lot of help, in the shape of practical suggestions, from him in making it, and he takes a great deal of interest in the gardens."

Then we passed on to the glasshouses, noting by the way some fine clumps of Rhododendrons, many of them twelve feet high and thirty feet through. The vineries, as Mr. Mills observed, are not modern, and contain only two varieties—Muscats for late, and Black Hamburgh for early use. As only these are grown, they can be treated in the same house. The stove house contains a very good specimen of Dracæna Sanderiana, ten feet high, with from thirty to forty growths; also some admirable specimens of Anthurium crystallinum Warocqueanum.

"What is your method in the greenhouses," I inquired, as we came upon a lovely batch of Cyclamens.

"The object in view is to keep up a supply of flowering plants through the winter season, of such varieties as Cyclamens, Primulas of sorts, Calceolarias, Gloxinias, Begonias, Campanula pyramidalis, Cannas, Michaelmas Daisies in pots, Gloire de Lorraine (of which specimens three feet four inches have been grown in one season), Chrysanthemums, Cypripediums, and Begonia Gloire de Sceaux. A considerable number of seedlings are raised annually from our own selection and fertilisation (both indoors), and of hardy flowering plants. I have a sport from Begonia Caledonia, which will make a pretty basket plant. The flower is very large, and pale pink, bordering on flesh-pink, in colour."

"Your Cyclamens are such a delightful feature that I should like to have any hints you can give me on the cultivation of them."

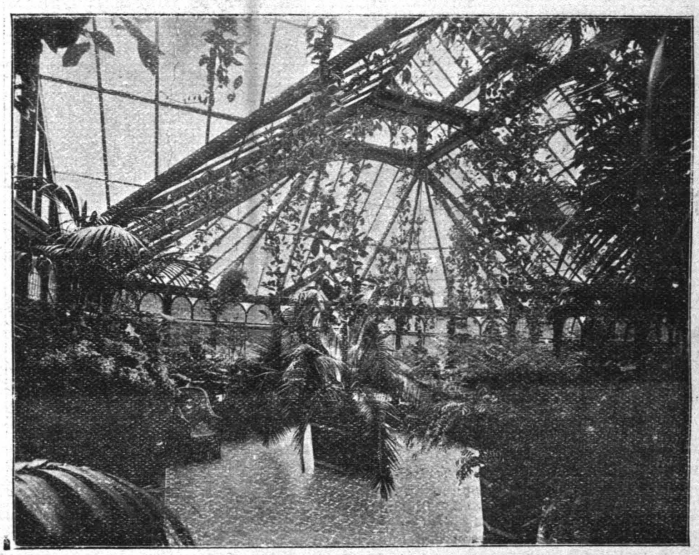
"I am surprised that the greenhouse Cyclamens are not cultivated more largely, as they are not only very floriferous, but of very lasting quality. We get a useful plant from Christmas far into March. It serves either for decorative purposes, as a pot plant, for cutting, or for embellishing the greenhouse."

"Your strain must be a very good one?"

"It is entirely our own, and was originally raised from the old Butterfly type, which was crossed with Vulcan, a very dark red variety. To this and the whole of the Butterfly strain was added the Papillio strain from Holland, and to this process of hybridisation, with careful cultivation, we owe our successes."

"And your method of cultivation?"

"We seed the plants we have selected and fertilised. These are ripe in June or July. Then we dry the seed immediately, and sow at once,



The Conservatory at Coombe House, Croydon.

in July, if possible, in pans. The compost consists of sandy loam, with good, rough drainage. Care should be taken as to this, drainage being a very essential thing for Cyclamens. We raise the seed in a slightly-heated pit or frame—a cold frame will do, if shut up early in the afternoon, to retain sun heat—allow the pans to stand upon coke-ashes, close to the glass, and water these occasionally, to keep coolness at the bottom of the pans, though in the late autumn and winter a temperature of forty to forty-six degrees is quite enough."

"When do you prick off the seedlings?"

"In January. They are put into pans, one inch apart, in good, sandy loam, and a very small quantity of dry cow-manure, passed through a very fine sieve. From February the plants require shading on bright days with a netted curtain, which I find is ample for Cyclamens right through the summer."

"You do not, then, agree with the plan of heavy shading?"

"On the contrary, I am sure that the loss of the beautiful marking of the leaf, which is often noticeable, is due to heavy shading, which also elongates the leaf-stalks immensely. About April the plants require to be taken from the pans and potted into 2-in. pots, or thumbs, in the same compost. They should be removed into a cold frame about the second or third week in May, and the frames should be covered at night if there is frost. In June they should be potted into 3½-in. pots, the compost being kept rougher by the use of more of the turfy loam, with a liberal addition of coarse sand. A small quantity of finely-sifted old mortar should be added."

"How soon is the next shift necessary?"

"From the end of August to the middle of September they should be put into "forty-eight" pots, the compost being made of very rough turfy loam, with old mortar-rubble, smashed up, finely-sifted cow-manure, and a liberal addition of coarse river-sand. Care should again be taken in the draining of the pots, the plants being syringed twice a day for a week or two, without the foliage being wetted. If the weather is genial, the lights should be removed from September to October during the middle of the day. The plants require to be housed about the latter part of October, if weather permits, when a temperature of forty-three degrees will be needed. As soon as they flower, this should be raised to forty-five or forty-eight degrees, but not higher. Old corms we knock entirely out of their pots, taking all soil away from the corm, which is then washed in clear water, and all decayed roots removed. The corms should be allowed to dry, and in June they should be potted in the same compost as seedlings, in 4¾-in. pots, placed in a cold frame, fully exposed to the sun, allowing ventilation, and kept damp until signs of growth appear. Then they should be shaded slightly. When they are dry they should be occasionally fumigated."

"I think you also go in largely for Chrysanthemums?"

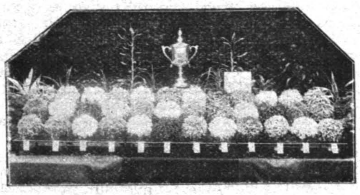
"Yes, we grow a great number, and I have exhibited largely. I won the Chrysanthemum cup, value twenty-five guineas, three years in succession, namely, 1897, 1898, and 1899, against seventeen competitors, extending the three years."

"Will you give the names of some of those you regard as the best Japanese varieties for exhibition?"

"Novelties of this season, of course, require to be proved by the profession and exhibitors before their merits can be discussed. But here are a few up to last year:—Bessie Godfrey (canary yellow), C. Penfold (crimson and buff), Duchess of Sutherland (orange-yellow), General Hutton (rich yellow, blushed red), George Lawrence (gold, bronze, and red), W. R. Church (one of the darkest), Godfrey's Pride (carmine-crimson), Florence Molyneux (white), Miss Elsie Fulton (white), Mafeking Hero (very dark), Mrs. George William (rosy-mauve), and Mrs. W. Mease (sulphur-yellow)."

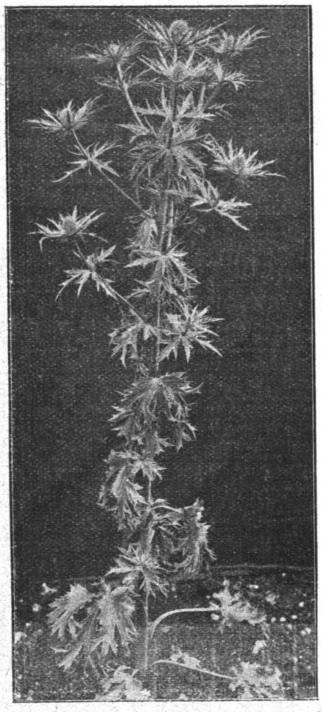
"I should like a similar list of the best Incurved."

"W. Higgs (incurved buff), Mrs. F. Judson (white), Charles Curtis (rich yellow), Lady Isabel (lavender-blush), Mrs. H. J. Jones (very large white), Topaz Oriental (pale yellow), Pearl Palace (white and pink), Charles Blick (white, tinted rose), Miss Nellie Southam (purple-



One of Mr. Mills's Prizewinning Exhibits.

lilac), General Symons (orange-buff), Frank Hammond (rosy-bronze), and Duchess of Fife (very large white). Here are a few consistent decorative varieties for early and late work:—Souvenir de la Petite Amie (white), Mary Anderson (large white, edged pink), Miss Annie Holder (sport from Mary Anderson, sulphur-yellow), White Ivory, Pink Ivory, Phœbus (new), Nelly Pockett (white, very fine), Charles Davis (terra-cotta), Lincoln (yellow), R. H. Pearson (rich yellow), and Little Nell (white). These will



Sport of Eryngium Amethystinum.
The only plant in this country.

flower in succession in the order named, from October till February."

"What about early-flowering varieties for outdoor gardening in borders?"

"Yellow Precocité and Madame Desgranges (white), Anastasio (light purple), Ambrose Thomas (reddish and golden), Albert Chausson (red, tipped yellow), Ivy Stark (orange and yellow), and Madame Marie Masse (lilac), will carry anyone through from August to October. With regard to such varieties as Mrs. Barkley and W. R. Church, I should say that the exhibitor does the dressing of these flowers at his own risk. I know perfectly well, both as an exhibitor and a judge, that such flowers are being dressed out of character, but if the societies wish to stop the practice they should make it clear in their schedules that exhibitors who resort to it expose themselves to the peril of being disqualified."

"I suppose that, in addition to the cup, you have taken a great many other prizes?"

"Altogether, I have taken three hundred and forty-seven prizes, many of them for Chrysanthemums. I have been showing for fourteen years, ever since I became head gardener."

"Where have you gained all your experience, Mr. Mills?"

"I started when I was fifteen years old at Coombe House, as a lad; then I went to another appointment close by. From there I proceeded to Mr. Laing's nursery at Forest Hill, where I remained for two years. At that time Mr. Laing was taking the lead in Begonias, and thought a great deal of a yellow variety that he brought out. Yellows were just coming to the front then."

"Did you return to Coombe House from Forest Hill?"

"No; I went as journeyman to Waddon House, in the gardens of Mr. Philip Crowley, for a couple of years. He was chairman of the Vegetable and Fruit Committee of the Royal Horticultural Society. Orchids and stove plants were the principal features, and while I was there we exhibited Orchids, and large specimen plants, such as Crotons, Allamandas, and Dipladenias. I then came here as second man. At that time the owner of the estate was the Baroness Heath. I was with her altogether between eight years and a-half, and was head gardener for three years. I have been head gardener to Mr. Lloyd for ten years, continuing here when he bought the property. The gardens are ten acres in extent, and I have from thirteen to fifteen men under me."

"What subjects do you chiefly choose to lecture upon?"

"Chrysanthemums, hardy flowering plants of the spring garden, table decorations, and various others."

"I gather, from various remarks you have made, that your interest is not limited to the practical side of gardening?"

"No, I take a keen interest also in the scientific side. In 1892 I gained the first certificate for Botany at the City of London College."

"How long did it take you to study for the examination?"

"A couple of years. The examiners put some very difficult questions, and I was the only candidate out of fourteen who obtained the certificate. I am strongly in favour of young gardeners learning the elements of botany. It is a real help to the practical side. I have found a knowledge of the questions of the fertilisation of the plant extremely useful. Young gardeners cannot be too often told of the importance of reading and study in their spare time. 'Thomson's Garden Assistant' is an admirable publication to read."

"Finally, I should be glad to know the names of any varieties which you have raised during your career."

"We have never gone to the extent of bringing plants out under name, though we have a good number that could be brought out. For instance, we have raised a pure white Primula Cheenica, and a double Begonia Worthiana, which will make a very floriferous greenhouse plant. The latter we have in colours. But our main object is to improve our strains of plants, so that when we have visitors to our gardens, it is possible to show them something out of the common."

Alfred Wilcox.

# THE GARDENS AT THE GRANGE, ASKHAM RICHARD, YORKSHIRE.

THE fine modern mansion erected in 1886 by the late Sir Andrew Fairbairn, at Askham Richard, a few miles from the city of York, and now the property of Mr. Wailes-Fairbairn and his wife, has extensive and interesting gardens, in which, on a fine October day, I spent some hours, while Mr. Millington, the gardener, gave me all the information in his power respecting their principal features. For a very good reason, the stately and impressive residence first claimed my attention. In the autumn sunshine, covered with the brilliant berries of Pyracanthus—the glorious orange presenting a charming contrast to the deep green of the foliage—it was a feast of colour to the eye, and I asked Mr. Millington if the display could be relied upon every year.

"We always get a fine show of berries," he replied, "but this year, possibly because of the exceptional amount of sunshine, they are above the average. As to the creeper, ordinary cuttings were planted when the house was built, and, as you see, it now practically covers the front. The flower is only tiny, but the berries begin to come towards the end of summer, and they last until the spring. From my experience here, I certainly recommend Pyracanthus for the purpose of decorating the front of a house. It requires little attention, but in the first or second week in August it should be cut back very carefully, and the long shoots taken off. There are a few Roses on the mansion, and varieties of Vitis, but the Pyracanthus, at this season, has it all its own way."

THE GRANGE, ASKHAM RICHARD.

### The Sunk Rosery.

When was the sunk Rosery, with the sundial in the centre, made?"

"During the last six years. In the spring it is planted with twenty thousand Narcissi and Tulips, all edged with Crocuses. The bush Roses are planted mixed, with a view to harmony in colour, and the climber on chains, with four arches, just level with the terrace, is Crimson Rambler. There were flowers the last week in June, and now, at the beginning of October, there is a fair number of blooms."

"In this dry season, how did you manage to keep the lawn so beautifully green?"

"I can only tell you that we never watered it. We have not, I suppose, been quite so much affected by the drought as gardens in some other parts of England."

Proceeding along the main drive from the park, and passing another lawn called the Horseshoe, we paused in the picturesque shrubbery, just behind the latter, at a piece of ground where a rockery has been started, which already gives promise of great things.

"This is only the beginning," said Mr. Millington, "and eventually it will extend as far as the ornamental water at the foot of the slope. There are some good varieties planted of Sempervirens, Saxifrages, Iberis, Primulas, Thymus, Campanulas, Aubrietias, and Phlox."

"You have a singularly pretty summer-house close to the rockery."

"It was designed and erected by Mr. Wailes-Fairbairn. He put up the posts, which are of timber, and planted the Weeping Ash, which, in only two years, has made great growth."

"I notice that there are more Roses in flower on the other side of the water."

"The raised beds containing the Roses were planted four years ago on the site of the old kitchen garden. There are Roses in all the front borders, as well as in the beds. The latter are edged with Pinks, and behind the Rose borders are four beds of Border Carnation Raby Castle."

"Is there any particular Rose which you prefer in such a position?"

"Gruss an Teplitz makes a splendid bed. I do not prune it too hard, but allow it to grow as it likes, and it yields a mass of flower."

"What about spring bedding?"

"We have practically none. The feature in the spring is the bulbs in the grass."

"You have ample scope for further extension," I said, as we stood at the end of the temporary division from the park.

"Yes, if it is required, there would be no difficulty. On this side of the house there is a great expanse of lawn, as well as the tennis and croquet courts. Perhaps there is an excess of green, and to afford room for more flowers I am about to take out all the Laurels in one corner, and plant it with Rhododendrons, Brooms, and Azaleas."

"But you have some beds to break the monotony, such as shrubs, with Pampas Grass in the centre, a nice lot of Golden Yews, and a bed of Azaleas. Then, there are some notable specimens of trees, the Acacia semperflorens in particular."

"That was only planted three years ago, and it is full of bloom. Its white flowers, the shape of Peas, are very ornamental. Among other specimen trees on the lawns are Cupressus in variety, Araucarias, and a noble avenue of Elms."

"The lawn on this side of the house is almost greener than on the other, and the banks sloping down from the terrace, reflect great credit on whoever did the work."

"They were done by our own staff, who, I think, took great pains to make the effect as good as possible. We shall do nothing to the lawn now until the spring. The only other feature on this side of the house is the big bed at the corner of the terrace steps. I had it put up three years ago, and remade it, planting Irises, Anemone japonica, Sunflowers, Tritomas, and herbaceous Phlox. Here, in the spring, we have bulbs, and a little later Wallflowers and Canterbury Bells."

### Borders in the Kitchen Garden.

The kitchen garden and houses at Askham Richard are on the other side of the road to the pleasure grounds, and are approached from the latter by a pleasant walk, which has been regravelled during the last few months, no less than two hundred and fifty tons being used for the purpose. Inside the walls, which extend for a long distance, and facing a Holly hedge, is a long bed of Seakale, and on the walls are Apricots, chiefly Moor Park. Entering the kitchen garden within the walls, Roses again attracted my attention.

"Under the east wall," continued Mr. Millington, "are planted seventy rows, about seven to a row, all bush plants. We select the hardiest varieties we can, but the names of a good many are quite unknown to me. In fact, I think they were here before the late Sir Andrew Fairbairn bought the property, and it must be said that most of them do exceptionally well. We have added such varieties as Frau Karl Druschki, Antoine Rivoire, Richmond, Lady Ashtown, Mrs. W. J. Grant, La France, Captain Hayward, and La Tosca. Altogether, I daresay there are two hundred and fifty varieties, chiefly Hybrid Teas and Hybrid Perpetuals. We begin to cut Roses in these beds the first week in July, and they go on until towards the end of October. In the spring we have a groundwork of Narcissi, chiefly Orange Phœnix, Pheasant-eye, and Tenby. We always try to make the kitchen garden look as attractive as possible, and for that purpose the paths are asphalted, with Box edging. In one of the borders are Violas and Veronicas, white and dark blue; while the border on the other side contains Ten-week Stocks, Alonsoas, and Jacobæas. In spring these borders are planted with Wallflowers and Myosotis."

### Begonias and Geraniums.

"I should like to have particulars of the combinations in the great border under your glass-houses."

"In the back row are Sunflowers, Hollyhocks, and Nicotiana. Other rows consist of Nemesia strumosa and Geraniums. In the front are scarlet Begonias, with Lobelia Mrs. Clibran."

"The drought does not appear to have injuriously affected your Begonias."

"On the contrary, they have never done better. They flowered in profusion until the end of September. I know that usually a season which suits Geraniums is not supposed to suit Begonias, but here we find one does as well as the other. This border in spring is occupied with Wallflowers, Myosotis, and Primroses, with Tulips, Rex ruborum. The Tulips flower at the

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same time, and the blaze of scarlet sets off the whole. The border opposite to this is filled in a similar manner to that facing the Roses."

"Have you named Lilies under your fine fountain in the centre of the garden?"

"Not yet, but the fountain itself was only put in a year ago; it is considered to be very handsome. The concreted seats, of which there are nearly a score in the gardens, were designed by Mr. Wailes-Fairbairn. In the border broken by the fountain, Antirrhinums are used to make a great display."

"You appear to get a good show of autumn-flowering Chrysanthemums?"

"The blooms are exceptionally late this year, but we shall have a quantity. The best variety for this season is Horace Martin. Polly is also a very fine variety, and other favourites are Diana and Improved Masse. With respect to Border Carnations, Grinkle Park is very useful. The calyx does not split; the flower is like Old Clove, but much better; and it stands a yard high, with long stalks. All these plants came from two or three cuttings I put in two years ago."

**How to Grow Tall Asters.**

"How do you contrive to get such high stalks to your Asters?"

"I sow the seed in boxes, and plant out in the spring. The treatment is quite ordinary. The varieties of colour are white, pink, and mauve, the most useful, I think, of the sinensis type. Scabious, of which we grow a good many, supply fine colours, and do well for table decorations. They have their own foliage, a great point with a garden flower. Of Violets, we only grow Marie Louise and La France. But I wish you had seen the flowers in August."

"Bearing in mind that on October 6th you have quantities of Jacobæas, Antirrhinums, Stocks, Marigolds, Alonsoas, and Asters, I can quite imagine how the beds must look two months earlier. Now, I should like to know something about your hardy fruit on the lofty walls, with useful coping on either side."

"On the west wall, facing east, Pears and Plums are grown; on the north, Morello Cherries, from which we get an enormous quantity of fruit. Between the Cherries are Red Currants on cordons, which we pick in October, getting the finest of fruit. In the bed behind are Black Currants, Boskoop Giant, which were planted three years ago, and, so far, have been free from the pest. Facing these, between the Pears, are Gooseberries."

"How many varieties of Pears do you go in for?"

"About forty. The best seven are Doyenne du Comice (in three situations), Marie Louise, Souvenir du Congres, Louise Bonne of Jersey, Durondeau, Uvedale's St. Germain, and Marie Benoist. Seventy varieties of Apples are grown, of which the best seven are Lane's Prince Albert, Annie Elizabeth, Stirling Castle, Ecklinville Seedling, Warner's King, King of the Pippins, and Cox's Pomona. While we are speaking of Apples, you might like to see the fruit room."

**Handling Fruit.**

"You appear to have it well filled."

"The crop is quite a fair average. One of the most important things in keeping Apples is to put them into the trays as carefully as if they were Peaches. A great deal of good fruit is spoilt by bad handling, and we do our best to save the crops after they have been gathered. Pears, of course, require to be as tenderly handled as Apples. Outside the walls we have nearly an acre of ground, on which we grow Apples as standards, with nothing underneath them, but Plums on the walls."

"How many varieties of Strawberries are represented in the garden?"

"The three chief are Royal Sovereign, Sir J. Paxton, and Laxton's Latest."

"Have you anything special in your frame ground?"

"The heated frames contain a few Salvias, Glory of Zurich, and a number of Pelargoniums. Freesias are coming on strongly and well; and in the deep pit we have Tomatoes in variety."

Passing into the houses, I enquired about the Melons and Cucumbers.

"The only variety of Cucumber is Blair's Prolific; the Melons are Queen of the West, Blenheim Orange, and Royal Sovereign. The stove contains a few Orchids, and on the wall a good specimen of Bougainvillea glabra. As to Grapes, in the early Vinery we have several varieties, and in the late are enormous bunches of Gros Colmar, useful bunches of Muscat, and a nice show of Alicantes. In the early Vinery are some of the bush and single-flowered Chrysanthemums."

"What is the sweet white flower in your greenhouse?"

"Toxophile Thunbergi. The flower, though pretty, is of no value for cutting. Palms are the chief feature of this house, but on the stage opposite there are also a quantity of Primula sinensis and obconica. Next is the Peach house, in which we had an exceptionally good crop."

**Spring-sown Sweet Peas.**

"You have omitted to mention Sweet Peas."

"They are all sown in spring in pots, and planted out. I put three seeds in each pot, and plant them a foot apart in the rows."

"What about vegetables?"

"The best and earliest Potato is Midlothian, which we get a fortnight before any other. Of Brussels Sprouts, we find Dalkeith and Aigburth the most satisfactory. Three varieties of Beetroot are grown, and Broccoli is exceptionally good. All the usual vegetables are grown, and we have a fair succession of Peas."

"How long have you been at Askham Richard?"

"Nine years. I was here for five years as foreman, and for the last four have been head gardener. I started gardening under my father, and have only held one other appointment. Since I have been in charge of these gardens, I have won perhaps as many prizes at Tadcaster as anyone else, in four efforts. I have taken two firsts at York Chrysanthemum Show for bottled fruit, and prizes for Apples and Pears. There is not, however, much time for showing, and, naturally, the object I keep most in view is to render the gardens as productive as possible, for house consumption and decoration."

ALFRED WILCOX.

NEXT week the gardens of Mr. G. Miller, at Newberries, Radlett, will be described.

## HARDY PLANTS IN POTS.

THE pot culture of various hardy perennials can be recommended when garden space is limited. The pots can be sunk in beds of cinders made up anywhere out of doors during winter—on pavement or spare gravel places, for instance—and removed in early spring or summer, to localities that need adornment. Many herbaceous plants, too, will blossom well in windows, porches, or unheated greenhouses.

**Suitable Plants for Pots.**

Geums prove quite satisfactory, and their foliage is attractive before they bloom. The familiar semi-double scarlet, G. coccineum plenum, may be chosen; or the orange G. Ewenii, G. Heldreichii, or the yellow G. montanum, and G. pyrenaicum. Columbines, double or single, make ideal pot plants on account of their elegance of growth and charming leaf clusters, as well as for their many-coloured flowers. On the outside of shady window-sills they give a fine effect in early summer.

When the garden has heavy, damp soil, hybrid Pyrethrums will not live in it, but they can be cultivated to perfection by the pot system. Clove Carnations, even the large-blooming white Pinks, give much pleasure. Canterbury Bells may be accompanied by any of the Peach-leaved Campanulas. The lesser Michaelmas Daisies and Pompon Chrysanthemums may continue the floral pot display throughout autumn. Dwarf Polyantha Roses are also suitable when well nourished.

DUNHAM.

## AUTUMN-FLOWERING ALPINES.

DURING the spring and early summer months the rock garden is seen in its glory, and quite a host of species either flower simultaneously or follow each other in rapid succession from March to June. We then witness a comparative dearth of flowers, but still find much to admire in the infinite variety of form, habit, and colouring of leafage which a representative collection of rock plants affords.

With the advent of autumn several species assume exquisite tints, perhaps unrivalled by anything we can call to mind. Mention may be made of Shortia galacifolia, Galax aphylla, and the Rodgersias, which shine in this way. Nor shall we look in vain for floral beauty, as many gems yield up their inflorescence, and are very welcome at a season when Dahlias, Tritomas, Asters, and Helianthus put forth a bold effort to make amends for the disappearance of a vast amount of beauty from the garden.

Oxalis corniculata resolves itself into a golden carpet; while Polygala chamœbuxus purpurea is conspicuous by reason of its purple and yellow blossoms. Blue and white, and blue and yellow flowers are seen in Linaria alpina and L. cymbalaria respectively.

Then we note several members of the Primula genus which are seen at their best when the hours of daylight are appreciably lessened. P. luteola, with yellow flowers, and P. grandis, in similar colouring, came to us from the Caucasus; while China is responsible for P. Poissoni, whose whorls of rich purple flowers are both distinct and attractive. Yet another rosy dark-eyed beauty is P. mollis.

The peculiar florescence of the Japanese Toad Lily is seen in September and October. The plant is known to botany as Tricyrtis hirta. A Himalayan species of Polygonum, namely vaccinifolium, affords a wealth of rosy-pink flowers borne on slender spikes. Another species with rosy-crimson blossoms that revels amongst the boulders is seen in P. affine.

**Beautiful Blue Flowers.**

Amongst the Campanulas we have C. sarmatica, with blue flowers. It hails from the Caucasus; while C. punctata, with drooping white flowers spotted with red, claims as its home the land of the Mikado.

We are grateful that a few of the Gentians reveal their beauty in autumn. Prominent amongst these is Gentiana septemfida, whose rich blue flowers are produced in abundance. The "Closed Gentian," in G. Andrewsi, with terminal clusters of blue flowers, is characterised by the failure of the flowers to expand. G. straminea and G. scabra, with greenish-white and blue and white flowers, are also worthy of note and attention.

The Saxifrages are represented by S. cortusæfolia, from Japan, and S. Fortunei, from China, and both make a brave show over many weeks. Silene Fortunei and Schaftæ extend the list; and then we have to sing the praises of the autumn-flowering Crocuses and Colchicums, which arrive upon the scene with delightful freshness, and afford a charming picture where naturalised colonies exist. The Neapolitan Cyclamen, too, possess a charm which is distinctly their own.

SUPERINTENDENT.

THROUGH Lieut.-Col. Sir George Holford, K.C.V.O., his Majesty the King has communicated to the directors of the International Horticultural Exhibition his intention to open the exhibition on May 22nd next.

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# OBITUARY.

DIED, at Faringdon, Berks, on September 19, 1876, GEORGE MILNE, for many years gardener at Buckland, aged seventy-one years, husband of the late Mrs. Jane Stuart Milne, a writer on botany.

**MILNE George.**
Effects under £800.

13 January. The Will of George Milne formerly of Buckland but late of Faringdon both in the County of **Berks** Gardener who died 19 September 1876 at Faringdon was proved at **Oxford** by Alexander Macfarlane of Great Tew near Enstone in the County of Oxford Land Steward and John Robertson of Vernon-street Hammersmith in the County of Middlesex Innkeeper the Executors.

**MILNE Harriet.**
Effects under £600.

17 July. Administration of the effects of Harriet Milne late of Warley House in the Parish of Halifax in the County of **York** Widow who died 9 June 1860 at Warley House was granted at the **Principal Registry** to Ernest Noel of Lydhurst Hayward's Heath in the County of Sussex Esquire the Husband and Administrator of the effects of Louisa Hope Noel the Daughter only Next of Kin and sole Person entitled.

**MILNE James.**
Effects under £450.

5 January. Administration of the effects of James Milne late of Mill-lane Newton-le-Willows in the County of **Lancaster** Paper Mill Manager a Widower who died 27 November 1876 at Feniscowles near Blackburn in the said County was granted at **Liverpool** to Thomas Milne of 20 Laurel-street Lower Broughton near Manchester in the said County Book-keeper the Son and one of the Next of Kin.

**MILNE James.**

14 April. The Confirmation of the Commissariot of **Perthshire** dated 2 April 1877 of Sarah Miller or Milne of Dunkeld in the County of Perth the Widow as sole Executrix Nominate of James Milne Painter Dunkeld who died at Dunkeld 2 March 1877.

**MILNE Robert Grant.**
Effects under £800.

22 November. Administration of the effects of Robert Grant Milne late of Everton Liverpool in the County of **Lancaster** Bachelor who died 17 June 1877 at Sea was granted at **Liverpool** to Anne Milne of 50 Aubrey-street Everton Widow the Mother and only Next of Kin.

**MILNE Samuel.**
Effects under £10,000.

4 May. The Will of Samuel Milne late of Burton Joyce in the County of **Nottingham** Yarn Agent who died 21 March 1877 at Burton Joyce was proved at **Nottingham** by the Reverend John Hodgson of Oldham in the County of Lancaster and the Reverend Abraham Stroyan of Hyde in the County of Chester Dissenting Ministers two of the Executors.

**MILNE Samuel.**
Effects under £20,000.

6 July. The Will with a Codicil of Samuel Milne late of Gordon Bank near Luddenden in the Parish of Halifax in the County of **York** Gentleman who died 13 April 1877 at Calverley House near Leeds in the said County was proved at **Wakefield** by Robert Harrington Smith of the Grange Warley near Halifax Manufacturer and Edward James Smith of Cliff Hill Warley Gentleman the Executors.

**MILNE Thomas Hays.**
Effects under £100.

26 September. The Will of Thomas Hays Milne late of 44 Hanover-street in the Borough of Rochdale in the County of **Lancaster** Shopkeeper who died 2 September 1877 at

Oxford Dictionary of National Biography

**Milner, Edward** (1819–1884), *gardener*
by Brent Elliott*, rev.*
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**Milner, Edward** (1819–1884), gardener, was born on 20 January 1819 in Darley, Derbyshire, the eldest of the two sons and six children of Henry Milner, sawyer and later gardener, and his wife, Mary Scales. By 1826 Henry Milner was in the employ of William Cavendish, sixth duke of Devonshire, at Chatsworth, where he served in a variety of posts, including gardener and porter. Edward Milner was educated at Bakewell grammar school and then apprenticed to the duke's head gardener, Joseph Paxton. In 1841 he went to Paris, where he studied at the Jardin des Plantes, before returning to Britain to become Paxton's assistant. Paxton made him foreman of works at Prince's Park, Liverpool, in 1844, and after completion he remained as superintendent. While there he assisted Paxton in works at Osmaston Manor, Derbyshire (1846–9). On 10 July 1844 he married Elizabeth Mary Kelly of Liverpool. They had five sons and six daughters.

In 1852 Paxton began work on re-erecting the Crystal Palace at Penge Park, Sydenham, and once again he hired Milner as superintendent of works. Milner moved to Oak Lodge, Norwood, and later to Hillside, Dulwich Wood Park. These works continued until 1856, when he again worked with Paxton in creating People's Park, Halifax, for Francis Crossley, carpet manufacturer and philanthropist.

From the mid-1850s Milner worked as an independent landscape gardener. Among his commissions were: Bryn-y-Neuadd, Llanfairfechan; Hartsholme Hall, Lincolnshire, for Joseph Shuttleworth; Stancliffe Hall, Derbyshire, for Joseph Whitworth; the initial garden at Bodnant, Tal-y-Cafn, for H. D. Pochin; Rangemore Hall, Staffordshire, for M. T. Bass; Iwerne Minster, Dorset, for G. G. Glyn, second Baron Wolverton; Highbury, Birmingham, for Joseph Chamberlain; and Locksbrook cemetery, Bath. In 1862 he received a commission from the town of Preston to design a series of parks, to be laid out as a scheme for relieving unemployment caused by the cotton famine; Moor Park, Miller Park, and Avenham Park were eventually opened in 1867. He landscaped the Lincoln arboretum (opened 1872), and the grounds of the Buxton Pavilion (1871), as well as Stoney Royd cemetery, Halifax. Among his works abroad were Schloss Anholt in Westphalia for Prince Salm-Salm, and Knutenborg Park, Denmark, for Count E. C. Knuth.

In 1881 the Crystal Palace Company set up the Crystal Palace School of Gardening, and Milner became its principal. He now took his son Henry Ernest Milner (1845–1906), for several years his principal assistant, into partnership. Milner never published a treatise on landscaping, but Henry Ernest's book *The Art and Practice of Landscape Gardening* (1890) was based to a great extent on his practice. Milner died on 26 March 1884 at home at Hillside, Fountain Road, Dulwich Wood Park.

BRENT ELLIOTT*, rev.*

**Sources** *Gardeners' Chronicle*, new ser., 21 (1884), 459 · *The Garden* (12 April 1884) · H. E. Milner, *The art and practice of landscape gardening* (1890) · A. Hodges, ‘A Victorian gardener: Edward Milner

(1819–1884)', *Garden History*, 5/3 (1977), 67–77 · private information (1993) [Mrs Alison Hodges] · m. cert. · d. cert.

**Wealth at death** £8191 3*s*. 7*d*.: probate, 1884, *CGPLA Eng. & Wales*

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Brent Elliott, 'Milner, Edward (1819–1884)', rev. *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/37770, accessed 28 Nov 2014]

Edward Milner (1819–1884): doi:10.1093/ref:odnb/37770

Oxford Dictionary of National Biography

**Milner, Henry Ernest** (1845–1906), *landscape gardener*
by Brent Elliott*, rev.*
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**Milner, Henry Ernest** (1845–1906), landscape gardener, was born on 18 April 1845 in Liverpool, the eldest of five sons and eleven children of Edward Milner (1819–1884), landscape gardener, and his wife, Elizabeth Mary Kelly. He was educated by a private tutor in France and Germany, and in 1862–4 worked in the London office of the builder Sir Samuel Morton Peto, who then sent him to Russia as an assistant engineer on railway works. In 1868 he was appointed a resident engineer on the Windsor and Annapolis Railway in Nova Scotia. There he met Mary, daughter of Senator Robert Barry Dickey of Amherst, whom he married in 1869. They had a son and a daughter.

On his return to England, Milner joined his father's practice as a landscape gardener, and in 1878 was made a member of the Institution of Civil Engineers. Among his commissions after his father's death were Victoria Park, Glossop (1887–8), Yeaton Peverey, Shropshire (1890), and Keszthely, Hungary (1885), for Count Festetics.

In 1890 Milner published *The Art and Practice of Landscape Gardening*, with most of the examples drawn from his father's work. It was well received in the horticultural press but drew fire from the advocates of formal gardening, especially Reginald Blomfield in his *The Formal Garden in England* (1892). In the wake of his book Milner received several of his most important commissions: the grounds of Wembley Park, for the tower proposed by Sir Edward Watkin in 1891; the enlargement of Princes Street Gardens, Edinburgh (1891); Gatton Park, Surrey, for Jeremiah Colman; Friar Park, Oxfordshire, for Sir Frank Crisp; Gisselfeld, Denmark (1896–8); and various works on the Swedish royal gardens, for which he was invested with the award of the North Star in 1899. In 1892 he began an involvement with Earls Court, by laying out the grounds for the international horticultural exhibition, but the industrial exhibition of 1894, of which he was a director, was a financial failure, and Milner made himself responsible for some of the debts. In 1897 he was one of the original recipients of the Victoria medal of honour in horticulture, presented by the Royal Horticultural Society.

Milner was known for his charm and the ease with which he made friends. He died on 10 March 1906 at his home at 119 Gipsy Hill, Norwood, and was buried in Darley; his wife survived him. His son, Barry Ernest Milner, entered his firm, but Edward White, who married his daughter, Winifred, became the dominant force in Milner, White & Partners.

BRENT ELLIOTT*, rev.*

**Sources** *Figaro* (22 June 1892) · *Gardeners' Chronicle*, 3rd ser., 39 (17 March 1906) · I. W. Leigh, 'Milner White and Partners', *Landscape Design*, 156 (Aug 1985), 9–13 · press cuttings book, Royal Horticultural Society, London · private information (1993) · *CGPLA Eng. & Wales* (1906)
**Wealth at death** £3693 2*s.*: probate, 30 March 1906, *CGPLA Eng. & Wales*

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Brent Elliott, 'Milner, Henry Ernest (1845–1906)', rev. *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/37771, accessed 28 Nov 2014]

Henry Ernest Milner (1845–1906): doi:10.1093/ref:odnb/37771

## Art. V. *Obituary.*

Died, at Moncrieffe House, February 7., *Mr. John Mitchell*, gardener, in his 77th year. His attentive and faithful services secured him the confidence of the honourable family with whom he so long resided. The extent of his practical knowledge, and the urbanity of his manner, made him respected by all of the same profession in many and distant parts of the country; whilst his unaffected piety, and kindly disposition, endeared him to his family and neighbourhood. He was considered the oldest servant in his profession, under the same family, of any in Perthshire. (*Perthshire Advertiser*, Feb. 28. 1838.)

The above was sent us by our valuable correspondent, Mr. Cameron, on Oct. 6.; who expresses surprise that some of our Perthshire correspondents had not anticipated him. Mr. Mitchell, he says, was reckoned a first-rate gardener in his day; he was held high in estimation by the Caledonian Horticultural Society, who awarded him many prizes for various productions, exhibited at different times. About thirty years ago, there was a very select collection of stove and green-house plants, which were well grown, at Moncrieffe House. Mr. Mitchell also excelled in growing carnations, and raised many good sorts from seeds. These he used to ripen by placing his plants on the top of the stage of his circular green-house. Mr. Murray, of the Glasgow Botanic Garden; Mr. Forbes, Woburn Abbey; and Mr. Shillinglaw, Duplin; with many other good gardeners, were pupils of Mr. Mitchell. — *D. Cameron. Bot. Gard., Birmingham, Oct.* 6. 1838.

Callistemons are almost invariably catalogued by nurserymen under the name Metrosideros, but the two are totally distinct), Podocarpus Totara, Mitraria coccinea, Philesia buxifolia, several large specimens of Abutilon vitifolium, Echium callithyrsum, 6 feet across; Callistemon speciosum, many fine bushes of Romneya Coulteri, which in this garden does not resent transplantation, though in the majority of cases this is followed by its speedy decease; Olearia nitida, Senecio Greyi and S. Fosteri, Abelia floribunda, Berberidopsis corallina, the rare Eucryphia cordata, 5 feet in height; Rhapiolepis ovata, Ozothamnus rosmarinifolius, Leptospermums, Pittosporums in variety, Nandina domestica, and other shrubs; while of Rhododendrons, the variety Pink Pearl, 5 feet in height and as much through, is worthy of mention.

Amongst other noteworthy plants are a fine specimen of Furcræa longæva, a collection of twenty varieties of Sprenger's Yuccas, Dracæna lentiginosa with narrow, brownish-red leaves; Mandevilla suaveolens, an enormous clump of Libertia formosa, 5 feet in height; Cyathea dealbata, Iris Robinsoniana, I. fimbriata (syn. japonica), Myosotidium nobile, Crinums of several species, Agapanthus, Nerines, Watsonias, and Antholyzas. In the rock-garden Ourisia coccinea, usually considered difficult to grow, is a weed, rambling everywhere and flowering profusely; Lithospermum prostratum has formed a cushion about 9 feet across; Kalosanthes grow and flower well, as do the rarer Erythroniums and Fritillarias; Primula Cashmeriana, from self-sown seed, was in flower, as were several blossoming colonies of Narcissus cyclamineus, also self-sown, and the fine Galanthus Whittalli was in bloom.

The large and representative collection of Narcissi, which includes most of the newer and rarer seedlings, gave evidence of being in the best of health, and I saw two N. cyclamineus seedlings that were flowering for the first time. One, a cross between N. cyclamineus and Henry Irving, had a clear yellow flower showing traces of both parents, and the other, from a cross with Soleil d'Or, had a many-flowered scape of clear yellow.

There are well-filled herbaceous borders and a large assortment of Saxifrages and other dwarf subjects among half-buried rocks in sunny borders. *S. W. Fitzherbert, February* 25.

## Obituary.

JOHN MITCHELL.—Born near Southampton in the year 1814, Mr. Jno. Mitchell died at Escrick, near York, February 20, 1904. Like most men who have attained to a great age, he had outlived most, if not all, of his contemporaries in early and middle life. John Mitchell was in his day one of the best known and most successful practical gardeners in Yorkshire. He began his gardening career in the then famous nursery of Mr. Page, of Southampton. Besides being a successful nurseryman, Mr. Page had a large connection as a landscape gardener. The writer has often heard John Mitchell speak with much respect of his first employer, although he must have been a very small boy when he went to work there, seeing that his wages were for a short time "a penny a day." By diligent attention to his duties and using every opportunity to make up for his lack of day-school teaching, he gradually but surely kept on improving his position in life. His first place as head gardener was at Eden Park, Beckenham, Kent. From there he went to Apley Castle, in Shropshire, the residence of Sir Thomas Charlton Meyrick. After about seven years' service there, he came, in 1854, to be gardener and forester to the late Lord Wenlock, at Escrick. At that time this well-known Yorkshire nobleman was making extensive improvements in the gardens and home woodlands attached to his residence. Amongst other improvements was the formation of a very fine Pinetum, in which, amongst other choice conifers, were planted some of the first-reared plants of Wellingtonia in the country. After a faithful service of some thirty-seven years the present Lord Wenlock kindly granted him a pension with a cottage in the village for the remainder of his life. As recently as the Wednesday before his death he was out in the village. His only daughter was married to one of his former pupils, Mr. B. Hope, gardener at Middleton Park, in Oxfordshire, the raiser of the well-known Middleton Park Beet. Some years ago both of them died, leaving two young children, who were brought up and educated by their grandfather. His remains were quietly interred in the village churchyard on Tuesday the 23rd ult. Mr. Mitchell has often told me about subscribing to the *Gardeners' Chronicle* when it was first issued in 1841. *H. J. C.*

## A NEW CYMBIDIUM FROM CHINA.

THIS remarkable species of Cymbidium (C. Wilsoni) was imported by Messrs. James Veitch & Sons, of Chelsea, from Yunnan, China. It is closely allied to C. giganteum, but differs in being much dwarfer, the scape more slender, and the labellum less hairy. The sepals and petals are green, with some indistinct, dotted, reddish lines extending half-way up. The lip is cream-coloured, with sepia-brown lines inside the side lobes, and reddish markings on the front. The species received an Award of Merit when shown at the meeting of the Royal Horticultural Society on February 23 last.

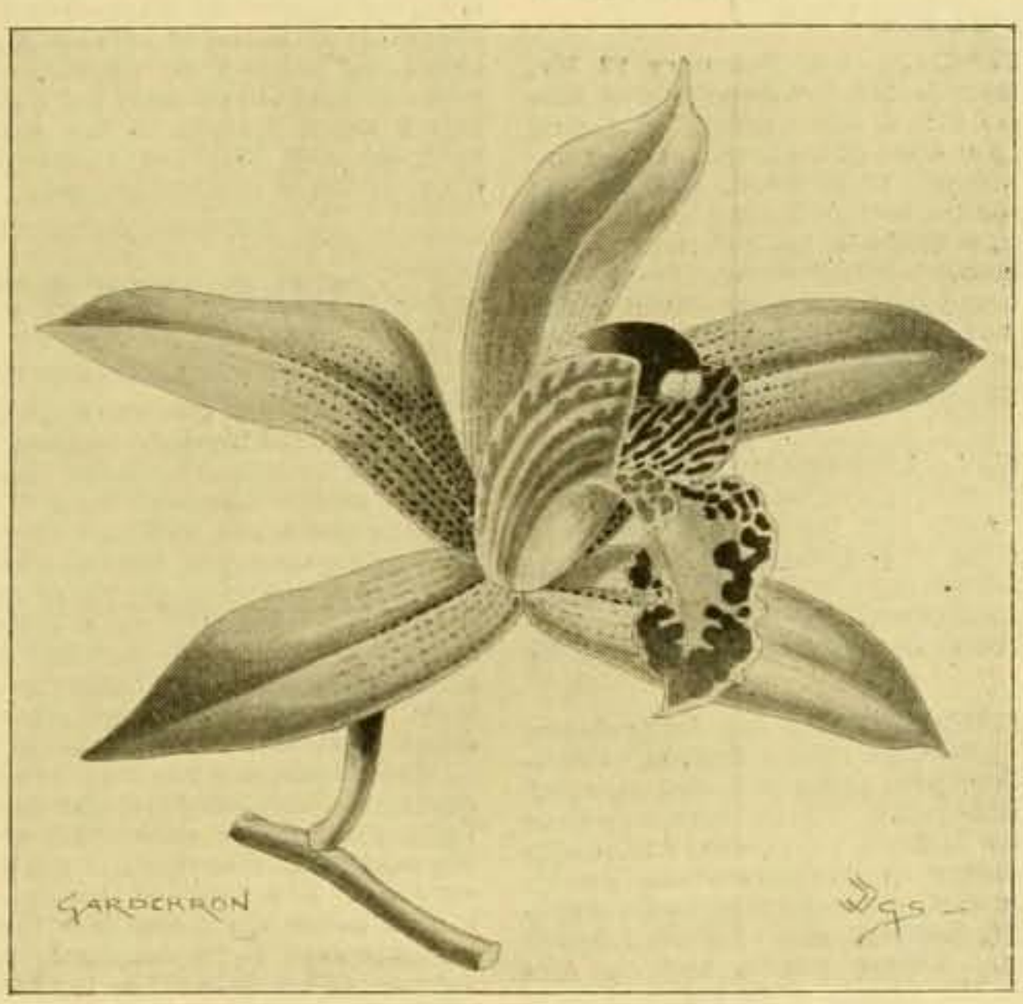


FIG. 66.—CYMBIDIUM WILSONI, FROM YUNNAN.
Flowers green with red marks; lip cream-coloured.

# SOCIETIES.

## ROYAL HORTICULTURAL.

### Scientific Committee.

FEBRUARY 23.—*Present:* Dr. M. T. Masters, F.R.S. (in the chair); Messrs. Hennesey, Chittenden, Odell, Baker, Veitch, Michael, Saunders, Bowles, Massee, Douglas, and Holmes; Dr. Cooke; Revs. W. Wilks and G. Henslow, Hon Sec.

*Coloured photos.*—Mr. Hickley exhibited some more miscellaneous transparent photos of vases, bouquets, &c., by his new process. A vote of thanks was accorded to him.

*Cyclamen malformed.*—Mr. Odell showed specimens in which petioles and peduncles were fused together, but not fasciated. The condition was remarkable, having been persistent for six years on the same plant.

*Silver Fir diseased.*—Mr. Massee showed a branch attacked by Æcidium elatinum. The Uredo form known as Melamprosella Cerastii attacks members of the order Caryophyllaceæ. He observed that the disease of the Birch caused by Phytoptus is spreading greatly in the neighbourhood of Kew.

*Cypripedium malformed.*—Dr. MASTERS described an unusual form (from Sir Trevor Lawrence's collection) of a blossom, which had four sepals, two petals, one column, with two staminodes, but a three-lobed stigma and three parietal placentas. It was thus a case of increased numbers of parts, or an attempt at forming a multifold flower.

*Cineraria, supposed disease.*—Dr. COOKE reported upon some leaves sent by Mr. Vose, of S. Norwood:—"I have received during the past week leaves of Cineraria from a Fellow of the Society who suspected them to be attacked by some mould. I examined and reported on these to the effect that I could find no parasitic mould upon the leaves; and although I examined the tomentum of the under surface as completely as it seemed possible to examine such a substance, I could find no mycelium mixed with the filaments of the tomentum, and no fragments of fungus hyphæ or fungus spores. Subsequent examination of other leaves, which had brownish and dead spots near the margin, furnished from these spots a few delicate fungus hyphæ with a few spores or conidia, evidently belonging to some species of Cladosporium. But as Cladosporium is so commonly found as a saprophyte on all kinds of dead vegetable matter, and so very rarely as a parasite, and in this instance occurred only upon dead spots, I came at once to the conclusion that it was not connected with any disease. However, I ventured to state that I should never be surprised to find some species of Oidium, with its chains of conidia, on leaves of Cineraria as well as on other composite plants."

*The failure of Beans in Houses.*—Mr. BAKER reported as follows upon this matter brought before the last meeting:—"Mr. Horseley writes that the plants and the unsown seed have been destroyed, and the earth thrown away. I have therefore to form an opinion from the long record. Assuming this to be correct, there is very little, if any, doubt that the failures were due to, first and chiefly, unbalanced sunlight and fire-heat. The period of failure was the end of October to January, an unusually dull, sunless time this season, even for these months, and it seems no allowance was made for this. This has been a fruitful source of trouble this season elsewhere, and should teach the importance of regulating the heat by the sunlight available. Secondly, the soil was chiefly of humus and too light, and almost certainly very deficient in available lime, phosphate, and potash.

# 1904.

**MITCHELL** John of Escrick Yorkshire died 20 February 1904 Probate **York** 6 April to Louisa Mitchell spinster Effects £1245 10*s*.

**MITCHELL** John of Toddington Bedfordshire estate-bailiff died 3 April 1904 Probate **Northampton** 19 May to Catherine Gilchrist Rintoul Mitchell widow Effects £1669 19*s*. 7*d*.

**MITCHELL** John of Haywards Heath Sussex died 24 May 1904 Probate **Lewes** 29 August to William Henry Field butcher Effects £324 5*s*. 5*d*.

**MITCHELL** John of 119 Tamworth-road Newcastle-upon-Tyne stonemason died 20 September 1894 Administration **Newcastle-upon-Tyne** 20 September to Flora Mitchell widow Effects £30.

**MITCHELL** John of 123 Cotton Tree-lane Colne Lancashire quarryman died 24 October 1904 at the Cottage-hospital Colne Administration **Lancaster** 5 December to Margaret Jane Mitchell widow Effects £5.

**MITCHELL** John Henry of Southend-on-Sea Essex died 19 June 1903 Administration **London** 16 January to Maude Mitchell spinster Effects £236 14*s*. 9*d*.

**MITCHELL** John Oswald of 7 Huntly-gardens Glasgow LL.D. died 26 January 1904 Confirmation of Andrew Acworth Mitchell writer the reverend Carr Glyn Acworth, William Mitchell Acworth barrister-at-law Donald Mackenzie writer to the signet William Crouch civil-engineer and Charles Ker chartered-accountant Sealed **London** 14 May.

**MITCHELL** Joseph of the Pen-house Denby Dale-road Wakefield died 26 February 1904 at the Poor-law-union-infirmary Wakefield Administration **Wakefield** 18 May to Ruth Ann Mitchell widow Effects £37 11*s*. 8*d*.

**MITCHELL** Joshua of 12 Church-road Battersea Surrey died 16 April 1904 Administration **London** 7 May to Charles Mitchell stonemason Effects £130 2*s*. 9*d*.

**MITCHELL** Josiah of 40 Dulwich-road Herne Hill Surrey died 27 August 1904 at "Camden" St. John's-road Poole Probate **London** 19 October to Sarah Jane Mitchell widow Effects £1390 8*s*. 9*d*.

**MITCHELL** Julia Elizabeth of 53 Shelgate-road Clapham Common Surrey spinster died 16 October 1904 Probate **London** 5 November to Charles Henry Mitchell jeweller and Alfred Mitchell commercial-clerk Effects £3412 5*s*. 8*d*.

**MITCHELL** Kate of 26 Lord-street Southport Lancashire spinster died 20 February 1885 Administration **Liverpool** 24 February to Frederick Mitchell agent Effects £58 15*s*.

**MITCHELL** Louis of 66 New-lane Laisterdyke Bradford died 24 August 1904 at 40 North Marine-drive Scarborough Administration (Limited) **Wakefield** 20 October to Sam Mitchell Effects £6200 0*s*. 2*d*.

**MITCHELL** Margaret of Wood Norton Norfolk spinster died 21 January 1904 Probate **Norwich** 13 June to Mary Elizabeth Mitchell spinster Effects £411 10*s*. 1*d*.

**MITCHELL** Maria of 9 Grove-villas East India-road Poplar Middlesex widow died 28 February 1904 Probate **London** 12 March to Walter John Mitchell signalman and Mary Ann Walbey (wife of William Walbey) Effects £246 11*s*. 4*d*.

**MITCHELL** Maria of 2 Mersey-road Aigburth Liverpool widow died 20 February 1904 Probate **London** 13 April to William Maxwell Mitchell gentleman Effects £766 13*s*. 8*d*.

**MITCHELL** Martha of 34 Gannow-lane Burnley widow died 5 March 1898 Administration **London** 22 April to Alice Baxter (wife of Mark Baxter) Effects £20.

**MITCHELL** Mary of Plumbland Moor near Aspatria Cumberland spinster died 6 October 1903 Probate **Carlisle** 15 January to Robert Mitchell labourer and Robert Mitchell farm-bailiff Effects £28 16*s*. 6*d*.

**MITCHELL** Mary of High-street Chobham Surrey widow died 13 January 1904 Probate **London** 8 February to Richard Henry Lascelles grocer Effects £135 14*s*. 9*d*.

**MITCHELL** Mary of Calton-villa Calton-road Bath (wife of Samuel George Mitchell) died 14 March 1903 Probate **Bristol** 16 March to Fanna Emily Vowles spinster Effects £434 5*s*. 6*d*.

**MITCHELL** Mary of Cubert Cornwall spinster died 3 February 1904 Administration **Bodmin** 24 March to Thomas Mitchell retired miner and Stephen Blight farmer Effects £178 0*s*. 9*d*.

**MITCHELL** Mary of Parsonstown Kings-county spinster died 17 April 1904 Administration Dublin to Adam Mitchell M.D. Sealed **London** 21 June Effects £222 in England.

**MITCHELL** Mary of South-common Axminster Devonshire spinster died 18 July 1904 at South-common Chardstock Devonshire Administration (with Will) **London** 8 August to Eliza Ebdon widow Effects £96 2*s*. 5*d*.

**MITCHELL** Mary of "Holmleigh" 72 Gladstone-road Watford Hertfordshire (wife of Thomas Mitchell) died 5 August 1904 Probate **London** 3 September to John Mitchell schoolmaster and the said Thomas Mitchell carpenter Effects £485 3*s*. 1*d*.

ties for observing it, I admit, are not very commendable—a little reflection should have shown it to be a fact. For the hard wood has ceased to grow; it is, therefore, incapable of uniting with anything else. If the stump of a branch pruned off some years ago is examined, it will be seen that the hard wood in the centre remains exactly as it was left by the saw. But around it, at its edge, will be noticed a circular swelling which has spread slightly over it. That is the subsequent growth. And it is there—in what is called the cambium layer—that union would have taken place. Hence it is essential to a successful graft that the cambium layer of the stock should be in contact with the cambium layer of the scion. In reality, the operation is merely an adaptation of the attempt which Nature always makes to heal a wound. In the case of pruning, the sap exudes from the cambium layer of the stump, dries and forms a protective ring; in the case of grafting, the air is shut out by means of clay or wax, and the sap is not allowed to dry, otherwise it would cease to flow, so it goes on forming a deposit until the space between the scion and the stock is filled up, and the union is complete.

May 20th.—Unfortunately, many conservatories are shaped with little regard to the plants to be grown in them. If they are narrow, very little can be done with them, but if broad they lend themselves to effective grouping. I have seen one which is very well managed, and have been able to secure a photograph.

H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 138.—MR. J. MINTY, AT THE GARDENS, CLEWER PARK, WINDSOR.

THANKS to the courtesy of Sir Daniel Gooch, I was able the other day to inspect the interesting and extensive gardens at his seat, close to the Royal Borough of Windsor, and to have a chat with the head gardener, Mr. Minty. An incident of my visit was that I made the acquaintance of a number of Pekinese dogs, of varying ages, many of them prize-winners at the leading shows. Lady Gooch, to whom I am indebted for this experience, has the reputation of possessing an almost unequalled collection of these rare and fascinating animals, and one of them, Peking Yen, is said to be the most handsome dog in England. With regard to the gardens, the houses and pits first claimed my attention, and observing some very fine Cucumbers, I asked Mr. Minty when he commenced cutting.

"The first of March," he replied, "and the variety is Randall's Improved, which seems to stand forcing well. We only grow one other variety, Telegraph."

"And Melons?" I inquired, as we passed in to view this house.

"Hero of Lockinge and Sellwood Park. The former, I think, is the best variety. We cut Hero of Lockinge the third week in May, and take three fruits off each plant. About the same time we begin cutting Tomatoes, Early Ruby and Sutton's Earliest of All. As you see, Vines are grown in pots in the Melon house, the three varieties being Foster's Seedling, Mrs. Pince, and Madresfield Court. By means of the pot Vines we get a supply of Grapes in Ascot week."

"Do you go in largely for Calanthes and Caladiums in their season?"

"We have about two hundred and fifty Calanthes—two varieties; I prefer the Veitchii. They are not difficult to grow, but require a good brisk temperature, and plenty of moisture, to keep them going. We usually have a quantity of Caladiums."

"I gather by the appearance of your Geraniums that you do a great deal of bedding?"

"Yes, we bed between three and four thousand Geraniums. The best scarlet is Paul Campbell, and the best white, Eureka. Border Carnations are also a feature. There are about five hundred in pots. Among the best are Cecilia, Jennie Wren, Goldy Locks, Mark the Miller, Alecti, and President Carnot. The collection includes two seedlings, Mrs. W. B. Lethbridge, which obtained a first-class certificate in 1901, and Maggie Minty, a mixed colour, for which I have not attempted to obtain a certificate."

"Did you raise the seedlings here?"

"No, at River Dene, Cookham. I hope this year to show Maggie Minty. It is a very good variety, with a nice long calyx, and does not burst."

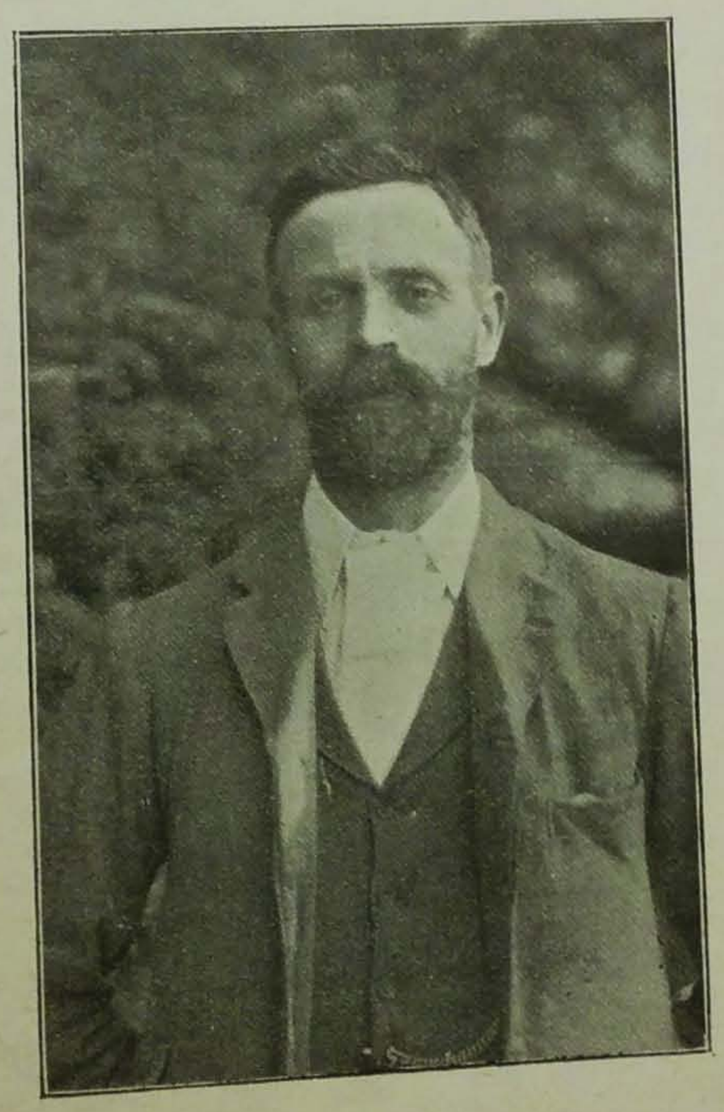
"Which varieties of the Malmaisons do you specially recommend?"

"Prince of Wales, Mrs. Martin R. Smith, Lady Grimston, Trumpeter, Mrs. E. Hambro, and Churchwarden."

"Do you grow many plants of the winter-flowering Carnations?"

"Two hundred, but the principal are William Robinson and Winter Cheer, the two best scarlet, and Mrs. Leopold de Rothschild, pink. We also grow Mrs. Lawson, Mrs. I. Brookes, Duchess of Devonshire, Lord Colville, and Alf. de Rothschild."

"You have a nice lot of Calceolarias?"



MR. J. MINTY.

"They have always been well done at Clewer Park—I mean for years before my time. We grow them chiefly for conservatory work. I consider that the pale-coloured varieties are the most effective, the golden especially. The seed is sown about July, the plants pricked out, and potted on as required. The great trouble with Calceolarias is the green-fly. But if they are kept in a frame by themselves, they can be easily treated, and cleanliness maintained."

"Have you any specialities in the stove?"

"The collection of plants includes Dracænas, Pandanus, Acalyphas, and Gardenias."

"What variety of Gardenias?"

"We are working up a stock of G. florida, the white, sweet-scented variety, which is a favourite with Lady Gooch. As soon as we can find cuttings, we propagate, and keep the young plants growing in a fairly high temperature. At present we have only a mixed stock of Orchids. The Cattleyas are chiefly labiatas, as they flower in the autumn, but we have also Cymbidiums in quantity. We have a number of imported Oncidiums Marshallianum and O. Forbesii, and a few of Odontoglossum Rossi. Pancratiums are grown in quantity."

Passing a wall with Roses, William Allen Richardson, and Gloire de Dijon doing well, we came to some bush plants of Chrysanthemums, and I asked the number.

"About four hundred," rejoined Mr. Minty. "Most of them are late-flowering varieties, such as W. H. Lincoln, Mr. J. Thompson, Hinde's White and Rosea superbum. We also grow a considerable quantity of Framfield Pink, a very useful variety."

Before we entered the old Vinery, Mr. Minty mentioned that on the piece of ground just outside he had had a second crop of forced Asparagus, with Radishes in between. "The Asparagus," he said, "did very well indeed; now Vegetable Marrows will follow."

"The old Vinery," continued Mr. Minty, "is used principally as a forcing house for Azaleas, tuberous Roses, and Spiræa, the only Grapes here being Black Hamburgh, with Ferns all along the front stage."

"How long have you had that remarkable specimen of Clerodendron Balfourii flowering in a pot?"

"Six weeks. The specimen is about ten years old. I propose to put it on a trellis, and make a pyramid of it. Smilax is largely grown for table decoration. In fact, we put it in every corner where we can spare space."

Next to the old Vinery is the show house, which used also to be a Vinery, and at the time of my visit contained a large quantity of Cineraria stellata, with a row of white Arums at the back.

"Here," said Mr. Minty, "I intend to bring the Calceolarias as soon as the Cinerarias go out of flower. We only grow the stellata variety of the latter. The light colours are most useful for table decoration, the darker do not light up at night. We had about two hundred plants to commence with, and they have been flowering since the second week in March. Cool treatment suits them the best, but, like Calceolarias, they are rather liable to attacks of green-fly. We fumigate with XL All for that pest, and find it very good and very safe."

"How many Pelargoniums do you think there are on the stretch behind the Cineraria?"

"About three hundred. The best of the varieties are Madame Charlotte, Sir W. Laurier, Mrs. Hall, Rev. F. Harris, The Sirdar, King of Denmark, Hilda, Hall Caine, Duchess of York, and Lady Sarah Wilson."

"I see you have a Maréchal Niel Rose overhead?"

"Within the last six weeks I have cut twenty dozen flowers off that plant, and there are a number of buds to open now. It has done remarkably well, without any special treatment. Planted outside, it was simply allowed to ramble on the roof. We have canker in the house, but not to any dangerous extent. In winter we grow double Primulas in quantity. I prefer M. Barron, a pure white. The flower-stalk is long, and shows well above the foliage. We have the other variety, but mean to discard it. That is a general principle I pursue, viz., to do away with inferior varieties when I find good ones."

"You grow Bamboos and Palms in your Fernery?"

"Yes, and also a batch of Cypripediums to make growth, and Begonias Gloire de Lorraine, of which there are some very nice cuttings. Among the varieties of Bamboos are Arundinaria Nitida and A. Falconeri. The former has been a year in the pot, and promises to make a nice plant. Then there is Phyllostachys castilionis, and Arundinaria Simonii striata, a very good little variety. I had only one plant of this variety, and divided it, and it is doing well. But the favourite plant for house decoration is our Cocos plumosus, which is an excellent specimen

from four to five years old. It ought never to be kept in the house for more than ten days during the winter months."

"How large is the kitchen garden?"

"The portion we are now entering is about an acre in extent. The soil is very good, and the crops on the whole do well. The Pears are all standards, and most of the Apples are old varieties. On the walls are Peaches and Plums, the varieties of Peaches being Waterloo, Early Alexandra, and Hale's Early. I find that a double herring net is a great protection against frost. In the frame we grow about five hundred Incurved and Japanese Chrysanthemums. The collection is well up to date, except that we have none of last year's novelties. They have just been moved into 'twenty-four' sized pots."

"I will note the date, April 29th; and I should like the names of a few of the best varieties?"

"Godfrey's Pride, Kimberley, Mrs. A. Bennett, Bessie Godfrey, Madame P. Radaelli, Rev. W. Wilks, Henry Perkins, F. S. Vallis, Madame Carnot, Mrs. T. W. Pockett, Madame G. Henry, and Mrs. G. T. Thorneycroft."

"Wire netting, I observe, is also used to encase the bush fruit?"

"Yes, this system has been in force here for four years, and answers admirably. The wire keeps out all kinds of birds. We sow at this season, between the bushes, Radishes, Cabbages, Cauliflowers, Broccoli, and Lettuce. Nearly a fourth of the kitchen garden is devoted to bush fruit, the ordinary varieties. Close to are Peas, which we go in for largely, sowing as many as twenty quarts. The varieties are May Queen, Sutton's Earliest of All, Sutton's Early Giant, Sutton's Beautiful Eureka, Duchess of Albany, and Autocrat."

"I admire the manner in which you combine utility and beauty by planting dwarf Roses at one end of the Peas, and standard Roses at the other."

"We make the kitchen garden look as nice as we can. At the end is our large Peach house."

"What is the length?"

"A hundred and twenty-five feet, and the house is twenty feet wide. The Peaches are planted out, and the varieties comprise Royal George, Early Alexander, and Waterloo. There is also Elruge Nectarine. In the borders we grow Lettuce (Hicks' Hardy Cos), which we have been cutting for five weeks. On the back stage are Azaleas, Marguerites, and Arum Lilies; and on the front are bedding plants, chiefly Geraniums and Iresines, with Strawberries on the top shelf."

"Royal Sovereign?"

"Yes, we force no other kind. Outside we grow Sir Joseph Paxton as well, and I hope to add La Grosse Sucrée, which thrives both inside and out. But, taking it all round, Royal Sovereign is the best variety."

"We have not exhausted the contents of the house yet."

"I may mention the specimens of Rhododendron—Himilayan variety, Veitchii Dalhousianum—which I bought a few weeks ago. It is pure white, free-flowering, and sweetly scented. I am anxious to grow a stock of it, and have allowed a quantity of seed-pods to ripen. I am also putting in a certain number of cuttings. In addition to Deutzias and Azalea Mollis, neither of which are forced, we have Weigelas, Guelder Roses, and Lilacs. Also a few pot Roses."

"What are your principal varieties in the newly-made herbaceous bed adjacent to the Peach house?"

"Delphiniums, Aquilegias, Centaureas, Rudbeckias, Hemerocallis, Anthericum, Campanulas (two varieties), Veronica (three varieties), Phloxes, Eremurus, and Arabis alpina, a double variety."

On the lawn in front of the mansion the first thing that attracted my notice was a magnificent Weeping Beech, and I inquired how long ago it was planted.

"It is about sixty years old," replied Mr. Minty, "and it is considered one of the finest specimens in England. In addition to the famous Beech, we have several good examples of Cedars, Cupressus, and various other Conifers."

"Your bedding on the lawn is very effective."

"Just now it is a combination of Tulips, Wallflowers, and Forget-me-nots. The Tulips are Chrysolora (yellow), Artus (scarlet), the white variety of Pottebakker, and Tournesol, the orange. The Wallflowers are Blood-red and Belvoir Castle. All round the mansion we have had Hyacinths, red, white, and blue; but they are practically over. The system is to have a large quantity of a few varieties."

"What Roses do you grow in the handsome pergola leading to the front garden?"

"Crimson Rambler, Bouquet d'Or, and William Allen Richardson, chiefly. We also grow Clematis, and other useful climbers. The pergola is forty-five yards long."

"Roses are grown largely outside?"

"Yes, all the beds in front have Roses in them, and the vases are filled at present with Wallflowers, Tulips, and Forget-me-nots."

"I see that beyond the lawn is a cricket field."

"The cricket field is five acres in extent, and several matches are played during the season. Other parts of the pleasure gardens are a quaint little grotto with a rockery; and adjoining the duck pond are two beds of herbaceous plants. I hope to fill one of them with Cactus Dahlias."

"What is the entire extent of the gardens?"

"The park and gardens are about thirty-three acres. The walk round the shrubbery is more than a quarter of a mile long. I propose to brighten up the main drive by a few golden Hollies."

"Where did you gain your own gardening experience?"

"I started at Rothiemay House, Banffshire, and was there for five years. Subsequently, I was at Ballindalloch for one year, Mount Quhanie for one year, foreman for three years at Blackwood House Lanarkshire, under the present head gardener at Wrest Park, Mr. MacKinley, and departmental foreman for five years at Dalkeith Palace. Then I crossed the Border, and was head gardener at River Dene, Cookham, for five years. Next I went to Cranbourne Court, where I was head gardener for eighteen months, and left through the property being sold. In September, 1903, I came here."

"How large is the gardening staff?"

"There are ten men under me. Sir Daniel and Lady Gooch give me every encouragement in the garden. We have a fire brigade at Clewer Park, in which Sir Daniel takes great interest. The members of the brigade all enjoy the work, and try to make themselves as efficient as possible."

ALFRED WILCOX.

CLEWER PARK, WINDSOR—THE EAST FRONT.

## Stocks in Perfection.

NO matter how excellent the strain of seed the Stocks have sprung from, and despite every care spent upon pricking them off without letting them receive the least check, a satisfactory result cannot be obtained if they are put into bad garden soil. Light soil must be mixed with decayed manure—heavy soil should be dug out in drills, and these should be filled up with rich potting compost, so that the Stocks, when set in the rows, have at least nine inches of good ground to grow in.

On light land that was manured in autumn, it will suffice if a trowelful of earth is lifted out where each plant is to be, and the hole is partly filled with good compost, more being added to settle the young plant in. As Stocks from seed are never all double, some should be planted out in a reserve bed, to be lifted to replace the singles that appear in the ornamental beds and borders.

Shade from sunshine for a day or two after planting.

HOBBY GARDENER.

## Spinach.

THERE is not as much care bestowed upon the culture of Spinach as upon most other vegetables; the result is much waste, both of ground and crop; and, coupled with these, one might say waste of quality, too.

The usual practice is to sow the seeds between the rows of Peas; I do not condemn it, as very good crops are thus obtained, without any injury to the Peas, providing the latter are not grown nearer together than five feet. But I would suggest a sowing or two of the Monstrous Viroflay Spinach on a well-trenched border of fairly rich soil, placing the rows two feet apart. Again, seldom is this crop thinned as it should be; far finer leaves would grow if the plants were thinned to three inches asunder while still quite small. If we leave a row or a bed of Lettuce plants unthinned, they will only attain to a medium size at the best, whereas duly-exposed plants grow to a large size. It is just the same as regards Spinach; the leaves are the feature, and they ought to be large and succulent.

DELAMERE.



## Letters

DEAR KATE,—How be
the spring is this
crumbled at the amount
must have been very bene
many plants, especially the
been on short commons in
eight years. Let us hope
good crop of Apples, Pears
sons, for the weather has b
so far.

In my garden there are
with other flowering trees,
stand any objection to the
a tree, and certainly the Ap
is one of the foveliest thi
Pear trees have been a ch
double Cherry of Japan is
tree, which the Japanese v
to see in the country every s
of Japan are made much m
and the blossom of the tree
colours of the Irises, and ot
the delight of every Japane

Cerasus-pseudo-cerasus is
ing tree, the buds are bright pi
pale pink, fading to white.
fruit, but is most ornamental,
be planted in a position in
flowers will show up against
this is best at a little distanc
globosa, the Honey-ball tree
opening its innumerable flow
swarm around it, for it is full
double pink May (Cratægus)
mass of bloom, with Lilacs,
Tea, and the Mock Orange (P
too. As a dear old cottage
used to say, "The best time
when the laylocks be out, a
singing," and she was certainl
Tulips galore are now in full
May Tulips, such as Bouton d'
yellow; Picotee, in white, v
edges, and, finest of all, Grei
scarlet, and of enormous size,
great masses of colour, and the
which I like Salvator Rosa, in
best) are very lovely in the
amongst the Wallflowers and
Another beautiful double Tulip
Albano Murillo, and a lovely be

would they be ... This is a comparatively ... matter, the chief difficulty likely to be met with ... to be had from some of the leading dealers in ... things, but that of special varieties, with ... or two exceptions, is scarce. When procured ... seed should be sown in pots of light, sandy ... —about equal parts of loam, leaf-soil (or ... sand, and crushed mortar will do nicely— ... free drainage. Place a piece of glass over ... pot, and keep the soil only just moist until ... seed has germinated. The best time to sow

very useful. Last autumn I planted a dwarf Plum (Victoria), trained; it is growing very fast. Please tell me if I should take off any of the new shoots, which are now over a foot long, and a great many of them? (Cricklewood.)——Yes, this exuberant growth must be reduced, certainly, but do not do it all at once, but by degrees, so as to avoid imparting a check to the tree. A number of the weaker and worst-placed shoots should be cut out altogether, where much crowded, leaving just enough to furnish the tree

THE GARDENER'S HOUSE AT STOKE PARK, SLOUGH.

April, in heat, but in a window the present ... good a time as any, but do it at once. It ... dily necessary to have a case, except, per- ... to raise and keep the young plants in until ... become fairly strong, but a very small affair ... do for this. All the Cacti like plenty of ... and though the east-south-east aspect would ... right, the other would be almost too shady, ... hour's sun per day is not sufficient. Any ... numerous kinds may be raised from seed, ... a rule the varieties of Cereus are the most ... Cuttings are easily struck, and should ... rted in well-drained pots of sandy soil- ... ovel), placing them in the sun, and water- ... ly when really necessary. Seedlings take ... three to five or more years before blooming. —ED.

well, or rather more, for the present. Any of those that grow more strongly than the rest should have their points pinched out.—ED.

ASPIDISTRA BLOOMING.—I should be much obliged if you can tell me how often an Aspidistra blooms (E.B., Tottenham).——Only once a year—in the early spring, as a rule, from February till April.—ED.

SEVERAL QUESTIONS.—Many thanks for last week's useful information. (1) Will you kindly tell me if I purchased a plant of Clematis montana (I believe that is the white kind, is it not?) now, would that be grown sufficiently by next spring to bloom, and what sort of treatment does it require when planting? (2) I have just raised some seedlings of Marguerite Carnations

and the flesh was sweet and jelly-like. The Fruit Committee thought highly of its merits. They declared that "if the Persimmon can be grown as finely as these fruits proved it can be, we should consider it well worth the attention of amateurs for fresh fruits for Christmas."

November 25th.—It may seem early to be thinking of vegetable seeds, but in such matters we must be always looking ahead—always planning for the future. In many gardens it is the practice to sow the same varieties year after year, the argument employed being that they have proved satisfactory in the past, and that, therefore, there is no object in changing them. This is right enough, as far as it goes, but it does not go far enough. We should endeavour to get, not what is merely satisfactory, but what is actually the best, of course within reasonable limits of price. For this reason it is advisable to know what one's neighbours are doing, and what they consider the best. Hence a list of the best seeds for the kitchen garden, drawn up by the secretary of the Royal Horticultural Society, in conjunction with the superintendent, and excluding all expensive novelties not yet sufficiently tested, should be useful. Here it is:—Dwarf Beans, Ne Plus Ultra; Broad Beans, Mammoth Long Pod; Runner Beans, Best of All; Cauliflowers, Early London and Autumn Giant; Broccoli, Winter White and May Queen; Cabbages, Ellam's Early and Nonpareil; Carrots, Intermediate; Celery, Major Clarke; Brussels Sprouts, Sutton's Exhibition; Lettuces, Paris Market and Paris Green Cos; Peas, Bountiful, Ideal, Duke of Albany, Captain Cuttle, and Autocrat; Potatoes, Sir John Llewellyn, Windsor Castle, and Duke of York; Turnips, Early Stone, Six Weeks, and Orange Jelly; Tomato, Comet; Marrows, Pen-y-byd, and Moore's Cream; Parsnip, Student; Parsley, Moss Curled; Leek, Musselburgh; Onions, James Keeping, and Ailsa Craig; Beet; Cheltenham Green Top, and Egyptian. This list would be hard to improve upon.

November 26th.—Nothing improves a garden more than a number of cosy little corners. Each corner should be distinctive, with its own class of plants, suited to sunshine or shade, as the case may be, yet each should form a part of the whole. In the woods such corners are common, and wherever they occur they each have their own special colonies. With trees and shrubs they are easily formed, but there are other ways adapted to small gardens. H. C. DAVIDSON.

MR. W. MITCHELL.

# Famous Gardeners at Home.

## No. 165.—MR. W. MITCHELL, AT THE GARDENS, CHILWORTH MANOR, ROMSEY.

ONE of the most brilliantly successful exhibitors of the year 1904 has been Mr. W. Mitchell, head gardener at Chilworth Manor, the Romsey seat of Mr. J. Willis Fleming, a leading Hampshire landowner. It is no new experience for Mr. Mitchell to carry off a great number of prizes in one season, but the record at the time of my visit to Chilworth, in the middle of October, is remarkable. For Grapes alone he had then taken nineteen first prizes, three seconds, and one third, while at the only five shows at which he had exhibited collections of fruit, he had secured four firsts and one third. Since then he has taken two firsts at Bournemouth, two at Southampton, one at Winchester, and three at Bristol, as well as several seconds. The total for Grapes this year has, therefore, been thirty firsts, seven seconds, and one third. Mr. Mitchell was also awarded a silver-gilt medal at Southampton in November for a collection of fruit consisting of Pears, Apples, and Grapes, not for competition. The attractions of Chilworth are many, including a delightful approach and a beautiful situation. But before we commenced our look round, I asked Mr. Mitchell to tell me when he commenced showing.

"Eleven years ago," he replied.

"That is since you came to Chilworth?"

"Yes, I have been here just twenty-one years. I started gardening under my uncle, who was head gardener at Dean Hall, Northampton, and at the expiration of five years I went to Orton Manor, Epsom. I was there about a year, and then for five years I was foreman at St. James's, Chislehurst, where I was pretty successful in growing Peaches. At the end of five years I came to Chilworth, as head."

"How many years have you exhibited at the National Fruit Show?"

"Ten. I started showing at Southampton, and since then I have shown regularly there, and also at Winchester, Bournemouth, Bath, Salisbury, Taunton, Brighton, and Trowbridge, as well as at the Crystal Palace."

"Have Grapes been always your speciality?"

"Grapes and Peaches. My collections of fruit embrace white and black Grapes, Peaches and Nectarines, Figs, Plums, Apples, and Pears. I commenced showing collections five years ago, and each time I have been awarded first at the Crystal Palace and at Bath."

"Where is the competition most keen?"

"At Bath. In September this year my bunches of Grapes comprised two of Muscat of Alexandria, three of Madresfield Court, two of Black Hamburgh, and one of Gros Maroc, and they averaged in weight four and three-quarter pounds each. One bunch weighed six pounds. Five years ago I took seven first prizes at county shows, and seven first at the Crystal Palace in the twelve months. In two years I took twenty-one firsts for Grapes."

"But this is your record year?"

"Yes; and, with three more shows in November, I hope to improve upon it."

"All the prizes have been for fruit?"

"This year. I have now given up vegetable showing. But in former years I have gone in for general showing at Southampton, including Onions, Potatoes, Carrots, and Beets. I have also shown tuberous Begonias, grown from seed, and Fuchsias—Charming, Queen of Denmark, Arabella, etc."

"With regard to Grapes, you mentioned weight. Do you make size the chief stuy?"

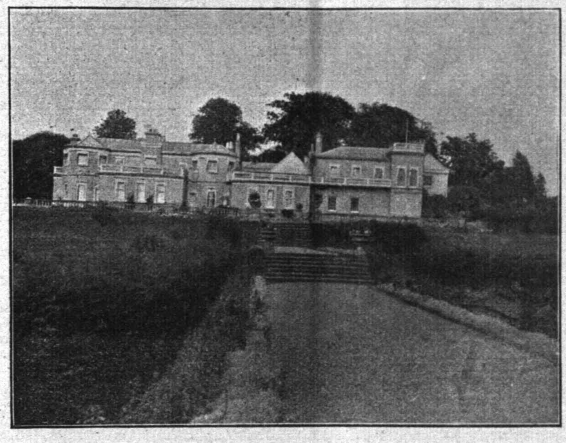
"On the contrary, size is a secondary matter. My bunches have always been more remarkable for quality than weight. Colour is another point; but I have never had any difficulty in getting colour in the berries."

"I suppose that it was a work of considerable time to get Grapes to such perfection?"

"It was, indeed. Take Mrs. Pince, for example. I was ten years getting that Grape to perfection. The first time I showed it at the Crystal Palace my bunches averaged four pounds each, a record in those days. It has been the same, in more or less degree, with other varieties. Since I have shown Madresfield Court at the Crystal Palace I have not been beaten."

"Now, shall we see the Grapes as they grow?" I suggested; and we made our way to the Vineries. In the first we entered, which was built eleven years ago by the carpenters on the estate, were some magnificent bunches of Muscats; and on the other side some, equally good, of Mrs. Pince, with a few of Lady Downe's Seedling.

"The worst of Mrs. Pince," said Mr. Mitchell, as we proceeded to the early house, "is that the Grapes will not keep plump after they get to perfection. The early varieties are Muscat, Gros Maroc, Hamburgh, Mill Hill, Madresfield Court,



THE MANOR HOUSE, CHILWORTH.

and Foster's Seedling. The bunches of Hamburgh I sent to the Palace came off a Vine sixty years old."

"How many varieties are there in the late Vinery?"

"Four—Madresfield Court, Mrs. Pince, Alicante, and Hamburgh. These Vines were planted about thirty years ago."

"I will not ask you to go into the general question of the cultivation of Vines, but perhaps you would not mind indicating a few of the points which you consider to be of the greatest importance?"

"In cutting back I find it an advantage to cut down to three eyes. With regard to fruiting the Vine, a well-ripened Vine will show a bunch at every eye, and two or more shoots. In disbudding, the best shoots and the best bunch should be left, and pinched to three leaves beyond the bunch. Three good, large leaves are worth more than six small leaves. Then pinch to one leaf till the space is filled. I like to pinch all bunches which are not wanted before they come into flower, as those which are left come much stronger, except the setting varieties. It is necessary that Vines should have air every day when the weather will permit. They can be started at almost any time, but the usual month for early Grapes is January, and for late ones the end of March."

"Are you an advocate of much watering?"

"My opinion is that many gardeners do not give enough water. Vines will take an immense quantity. I cannot lay down a hard and fast rule, but they should not be allowed to get dry at any time. Farmyard manure is valuable, and manure-water should be given as soon as the Grapes are set, in order to swell them up quickly."

"What about borders?"

"I prefer inside borders for early and late Grapes, because they are more under the control of the cultivator. But for mid-season Grapes outside borders are desirable, and they are best for amateurs. A Vine growing in an inside border needs more skill and attention. With regard to shading, most Vines in very light houses, with large squares of glass, are benefited by shading when the sun is very hot. Old Vines can be lifted when they are healthy, and planted again. I lifted some Muscats and Black Hamburghs one winter, and had some Grapes off them; but I do not advise cropping the first season after planting."

"Are you able to give personal attention to the cultivation of Vines?"

"I not only give it, but I consider that it is essential. The gardening staff here is only six, and, in any case, I should look after the Vines and Peach trees."

"Of course, I am too late to see the fruits of the Peaches, but what are the varieties you grow in the different houses?"

"The Peaches in the houses are Noblesse, Dymond, Early Grosse Mignonne, Princess of Wales, Royal George, Sea Eagle, Violette Hative, and Walburton Admirable; the Nectarines—Elruge, Lord Napier, Pineapple, Pitmaston Orange, Spenser, and Victoria. Outside we grow Royal George, Dymond, Noblesse, and Sea Eagle, the single Nectarine being Violette Hative. The trees in the cool Peach-house have only been up six and a-half years."

"I should like a few hints on Peach cultivation."

"With pleasure. The first thing in starting is to choose trees that are not strong. I prefer to get them, if possible, two or three years from the bud, when they have been shifted twice, as they are then in a good condition for planting. The soil in which they are planted should not be too rich, for it is better to have to feed the trees a little than to have rank growers. But Peaches can be grown in almost any soil, if they receive sufficient attention and are fed at the right time."

"What kind of border do you prefer?"

"One about two feet in depth. Care should be taken to make the drainage good. The question of width is immaterial, but I prefer a border from five to eight feet, according to the size of the trees or space at command. Manure should not be used in planting, but in feeding. In pruning young trees, it is not necessary to cut them back too hard. If the wood is well ripened, there is no difficulty in disbudding according to requirements. When the shoots are about two feet in length, the points should be pinched out, and the laterals should be trained in; they will ripen and set the buds for next year."

"You attach great importance to disbudding?"

"Yes, it is an operation that requires thought and skill; and it can only be learnt by experience. In disbudding, all the worst shoots, or extra strong ones which are not wanted, should be rubbed off. A little disbudding should be done at a time—not all at once. In the final disbudding, only one shoot should be left behind the fruit, and one in front, to draw up the sap."

"How often do you syringe the trees?"

"Unless the weather is dull, I syringe them twice a day until they come into flower. Then I leave off until the fruit is set. In order to kill any fly or insects there may happen to be in the house, it should be well fumigated before the trees flower. I generally go over them with a rabbit's tail, tied on a thick pole, or give the trees a tap, once or twice a day. As soon as the fruit is set, the worst specimens on the under side may be rubbed off, the Peaches that are in the best position being left. But too many should not be taken off until it is clear which of them are going to swell. Disbudding should be continued every week or ten days, until the right number of shoots is obtained, and a few of the fruits should be taken off at the same time. There should be full exposure of the foliage to light and air. The fruits also should be exposed to the light, and this can be done by keeping them up and removing a few of the leaves."

"Do you give air constantly?"

"I like to give a little always. It makes the growth stronger to withstand a change in weather. The trees should be well watered in the autumn, if the drainage is good, and in the spring also. But some trees, like Noblesse, take more water than others."

"With regard to trees out of doors, is your treatment different?"

"No, it is much the same. But to keep them in good health there must be plenty of syringing. If they are too strong, they should not be pruned, for no amount of pinching will stop rank growth."

"We may as well go on with the fruit trees in the kitchen garden."

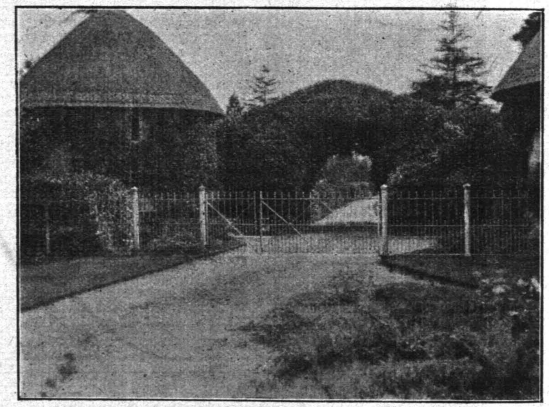
"There are more than sixty varieties of Apples. I have shown upwards of fifty. The following are, in my judgment, the best twenty dessert and cooking:—American Mother, Balchin Pearmain, Beauty of Bath, Cockle's Pippin, Cornish Aromatic, Cox's Orange Pippin, King of the Pippins, Lady Sudeley, Ribston Pippin, Wealthy, Worcester Pearmain, Col. Vaughan, Annie Elizabeth, Gascoyne's Seedling, Hoary Morning, Lord Grosvenor, Mere de Menage, Pott's Seedling, Alfriston, and Warner's King."

"Pears, I notice, are planted right and left of the centre walk, the Apple trees being in the side paths?"

"Yes, all these trees were only planted four years ago. The best of the Pears are:—Autumn Nelis, Beacon, Beurré d'Amanlis, Beurré Bosc, Beurré Clairgeau, Beurré Hardy, Citron des Carmes, Comte de Lamy, Conference, Doyenné du Comice, Durondeau, Emile d'Heyst, Thompson's, Marguerite Marillat, Pitmaston Duchess, and Williams's Bon Chrétien. The fine trees of Conference were only planted two years since."

"Has your Apple crop been heavy?"

"Very. Several trees have broken down with the weight of the fruit. The outdoor soil is very poor for fruit. For indoor use we cart it a distance of a mile and a-half."



The Manor House Lodge at Chilworth.

"How many varieties of Plums are there on the walls?"

"Twelve—Angelina Burdett, Czar, Diamond, Early Prolific, Jefferson, Kirke's, Pond's Seedling, Monarch, Princess of Wales, Victoria, Purple Gage, and Golden Drop. There are three varieties of Figs—Brown Turkey, Brunswick, and Negro Largo. Morella Cherries do not thrive for more than three or four years; then they go off."

"What about bush fruit?"

"We have a large variety. The Black Currants are Lee's Black; and the Red Currants, Raby Castle and Lee's Prolific. Of a great number of varieties of Gooseberries, the two best are, I think, Crown Bob and Whinham's Industry. Of Raspberries, we grow Superlative, which is the best, and Antwerp. The Strawberries include Royal Sovereign and Sir Joseph Paxton. We force a few."

"You have also a few pot trees of fruit?"

"They are intended to help me in making up seventh, eighth, or ninth dishes in August. We can always get six good dishes in the ordinary way, but I find that the others are not so easy."

"Do you force much in the way of vegetables?"

"I have a nice lot of young Carrots (Toogood's) in the pits. Potatoes are forced in the spring, Tomatoes in summer, and Salads in

winter. The three Tomatoes grown are Toogood's Wonderful, Sutton's A1, and Sutton's Perfection. In the pits we grow Violets—Princess of Wales and Marie Louise; and The Czar and California are grown outside."

"Are Chrysanthemums a feature?"

"No, we do not grow the large blooms, and have only about a hundred plants for cutting purposes."

"I see you have some nice Zonal Pelargoniums in one of the two little plant-houses, with the Tacsonia on the roof?"

"Yes, and previously we had a nice collection of Begonias in this house. Salvia splendens is doing well, and there are some good specimens of Euchotorian [?—ED.], which is nearly hardy."

"How long does it remain in flower?"

"About six weeks. The plants, which I have grown for some years, must not be pinched too late, or they will not flower at all. The house which answers the purpose of a stove contains Orchids—Cypripedium insignis, Dendrobium, and Zygopetalums—a few Crotons, and Dracænas, Allamandas, and Stephanotis."

"You are making extensive alterations in the pleasure-grounds," I said, as we strolled along outside.

"Yes, in almost every direction; and, as you see, the house itself is practically being rebuilt. The chief feature of the flowering shrubs are Rhododendrons and Azaleas, many of them named varieties. We keep on making additions, as well as alterations. One of these is a little orchard, planted two years ago. Considering the time, the Apples are doing very well. The pond in front of the house is being remade. We have planted a quantity of Montbretias and common Ferns, and intend to add others."

"I notice that you have a wooden Rose arch just here?"

"We have substituted the wood for wire. The varieties are not numerous, but good, and include the Dundee and Crimson Ramblers."

"When was the Yew hedge planted?"

"Six years ago. There are a hundred and fifty Yews on each side, and the idea is to have an old-fashioned Yew hedge. The border with named varieties of Phlox Drummondii is a hundred yards long."

"It is quite a feature, and I should be glad of the names of some of the varieties of Phlox?"

"White Queen, Sylia, Beatrice, Madagascar, Gloire de Maire, Simplon, Charles, Penge, Eugene Daugumellor, Moliere, Esclarmonde, Dupuy, Countess of Radnor, and Pantheon."

"In the side are Roses?"

"Chiefly Tea varieties, including Souvenir de S. A. Prince, Beauté Inconstante, Souvenir d'un Ami, and Sunrise. Mixed with other varieties, Sunrise does well, but not in a bed alone."

"You have a number of Roses facing the Figs, which we have not mentioned?"

"Altogether, we grow about eleven hundred plants. The varieties of different sections in the beds you mean include Muriel Graham, Duke of Edinburgh, Mrs. Sharman Crawford, Kaiserin Augusta Victoria, Frau Karl Druschki, Mrs. W. J. Grant, Mrs. Edward Mawley, Mildred Grant, Gladys Harkness, Killarney, Ulrich Brunner, The Bride, A. K. Williams, Duchess of Bedford, La France, Mrs. John Laing, Fisher Holmes, white Maman Cochet, Caroline Testout, and Madame Hoste."

"To return to the terrace walks. How many plants does the bed of Japanese Iris contain?"

"Fifty, and there are fifty varieties. They all came from Japan last May. Another bed was planted some years ago, and we have had splendid shows of flowers. The latter are not named. The two Bamboos close by came from the Isle of Wight."

"They are very fine specimens. How long have they been here?"

"Eleven years. They were grown from two little pieces. The variety is Arundinaria falcata. The Tritomas, close to the three specimens of Pampas Grass, were rather late, but the spikes were very fine."

"On the terrace itself you have standard Roses?"

"And beds of Geraniums. The Roses are Bouquet d'Or and Gloire de Dijon; the Geraniums, Madame Crousse and Henry Jacoby. We have tried Begonias, but the soil is too hot for them. In the walk to the left of the Manor House are Portugal Laurels."

"When did you plant them?"

"Five years ago, a dozen on each side. The evergreen Oak, and the two old Cedars, one on each side of the lawn, are among our grandest trees. Quite a feature in June is the border of Ghent Azaleas, in front of the Rhododendrons. We get the advantage of the flower then, and of the colour of the leaf in the autumn."

"When was the shady walk, having Rhododendrons on one side, and Laurels on the other, made?"

"Last autumn. The intention was to form an arch. The walk is one hundred and fifty yards long. On the side wall, to screen the stables, are Wistaria sinensis and Wistaria alba. An avenue of Limes has lately been planted at the back entrance to the grounds. All the boundaries, of which there are many, are evergreen, and we cut all the Laurels with a knife."

"What is the extent of the gardens inside the boundaries?"

"From eleven to twelve acres. The additions and improvements all originate from the date Mr. Fleming came of age, eleven years ago."

"A great deal of time," continued Mr. Mitchell, "is taken up in cutting hedges, and in pruning. We grow more than a thousand Rhododendrons, and quite five hundred Azaleas, and each one is pruned with the knife. No clipping is done."

Lastly, near the Manor House, from the flat roof of which may be seen Lady Ashburton's place in Wiltshire, and many other well-known mansions, with a great stretch of country, is a notable feature, consisting of a specimen ground, in which single specimens of many shrubs and Conifers are flourishing.

"You have several specimens of standard Rhododendrons," I observed.

"Yes; there are plants of Catawbiense Everestianum, Catawbiense delicatissimum, Blandyanum, and Lady Eleanor Cathcart. Other specimens include Picea Nordmanniana, Cupressus macropcarpa, Thujopsis borealis, Berberis Jamesii and Darwinii, Sciadopitys verticillata, Abies pungens glauca, several specimens of the Redwood tree, and a very fine specimen of Thuja gigantea, planted fifty or sixty years ago."

"Then this specimen ground was made about that time?"

"It was made when the gardens were made, at the time of the Crimean War, by Mr. Fleming's father. The specimens, of course, were planted at different periods."

"I suppose that the two very picturesque little lodges at the entrance were put up at the same time?"

"No doubt they were. Now, we are effecting every modern improvement possible in both the house and the grounds, retaining nevertheless all the old features which are worth preserving. I think that if you see Chilworth when it is completed, you will admire it more than you can to-day."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 121.—HALF-HARDY BULBS, AND WOODWARDIAS.

DEAR KATE,—Do you grow the Kaffir Lily (Schizostylis coccinea) in your garden? Everyone should possess this bright crimson blossom in November and December, for it is a glorious bit of colour, and we have not too much brilliant red at this time of year. The Winter

TIGRIDIA ALBA.

Gladiolus (as it is called) grows like a weed in my garden, appearing in many places where it has not been planted, for its roots increase themselves, and in a year or two they become such a mass that we dig them up in March, and divide them. They grow in a border which faces the south-east, and, perhaps, this has something to do with their abundance, because most sub-tropical and tropical bulbous plants require to be well roasted by the sunshine in summer, being accustomed to a much warmer climate than ours. Behind them (at the distance of a few feet) there is a wall, with a hedge above it, and this is very useful to the Kaffir Lily, which needs protection from the strong west winds when it is throwing up its stems (about two feet high) in the late autumn. These spikes of bloom are lovely for decorative purposes, and they are produced to the end of the year, so that they are most valuable. Another beautiful flower for cutting now is Iris stylosa, which is blooming grandly already under the conservatory wall, so that we cut seven or eight of its exquisite Orchid-like blossoms at a time. They should always be cut in the bud, as soon as the colour shows, for the texture of these petals is so delicate that the wind or rain quite spoils them, but if you place the buds in a glass of tepid water (which should stand in the sunny window of a room with a fire), they will open to perfection very quickly.

The colour is a specially pure shade of mauve, with white and gold markings, and the stems are sometimes a foot long, so that they are excellent for cutting. These plants must not have manure or rich soil of any kind. I put in the original clumps in October, 1899, and they did not bloom the first year, but have increased mightily since then; they are planted in the gravel of the path, close to the south wall of the conservatory, on a well-drained terrace, where they are baked in summer; and we just leave them alone from year to year. Two other clumps, put into a border which does not obtain so much sunshine, produce plenty of leaves, but few flowers.

We are now going to ash up all the delicate things for the winter, as soon as the Dahlias and blue Salvias are all taken up, but they have been so bright up to the middle of November this year, that we have been loath to cut them down. Everyone admires the glorious blue of Salvia patens, and it is a most obliging plant, producing its lovely flowers for many months. But

# OBITUARY.

We have to record the death of Mr. Thomas Moffatt, an event which took place on the 4th inst., in his 91st year. He was gardener to the late Viscount Sydney, at Frognall, for a period of twenty years, up to the time of his lordship's death. He then went to Clumber, where he served three Dukes of Newcastle in succession—the father, the son, and the grandson—and he was much esteemed by all the members of that family, being a man of large and varied information, and eminent as a thoroughly practical gardener. He was the oldest Fellow of the Royal Horticultural Society, and was appointed by that Society to form one of a committee of three to select a site for the new garden then about to be formed, when Chiswick was selected as the most eligible out of several sites inspected, and the recommendation of the committee was adopted. He was a man of high principles, strict integrity, and faithful in his friendships.

left unadministered by Mary Moffatt Widow the Relict was granted at **Wakefield** to Arthur Moffatt of Cleckheaton in the said County Groom the Son and one of the Next of Kin. **Former Grant** at Wakefield April 1873.

**MOFFATT Sarah.**

Personal Estate under £25,000.

10 May. The Will of Sarah Moffatt late of Waterden House Waterden-crescent Guildford in the County of **Surrey** Spinster who died 21 March 1878 at Waterden House was proved at the **Principal Registry** by Robert Moffatt of 38 Mincing-lane in the City of London Colonial Broker the Nephew the sole Executor.

**MOFFATT Thomas.**

Personal Estate under £300.

30 January. The Will of Thomas Moffatt late of Middleton in Teesdale in the County of **Durham** Commercial Clerk who died 28 December 1877 at Middleton in Teesdale was proved at **Durham** by George Hugall Rennison of Sunderland in the said County Goldsmith and Elizabeth Heslop Moffatt of Middleton in Teesdale Widow the Relict the Executors.

**MOFFATT Thomas.**

Personal Estate under £2,000.

11 June. The Will of Thomas Moffatt late of Barnby Moor in the Parish of Blyth in the County of **Nottingham** Gentleman who died 4 January 1878 at Barnby Moor was proved at the **Principal Registry** by Frederick Latham of Barnby Moor Steward one of the Executors.

**MOFFATT Thomas Taylor.**

Personal Estate under £450.

29 November. Administration of the Personal Estate of Thomas Taylor Moffatt late of the Lunatic Asylum Dunedin in the District of Otago in the Colony of **New Zealand** Gentleman a Bachelor who died 2 April 1873 at the said Lunatic Asylum was granted at the **Principal Registry** to Robert Moffatt of 38 Mincing-lane in the City of London Tea Broker the Brother and one of the Next of Kin.

**MOFFATT William.**

Personal Estate under £300.

17 May. The Will of William Moffatt formerly of 27 Coppice-row Clerkenwell in the County of Middlesex but late of 12 Graham-street Walworth in the County of **Surrey** who died 19 January 1878 at 12 Graham-street was proved at the **Principal Registry** by Ann Moffatt of 12 Graham-street Widow the Relict the sole Executrix.

**MOFFET Mary.**

Personal Estate under £100.

2 July. The Will of Mary Moffet late of Whitby in the County of **York** Widow who died 29 May 1877 at Whitby was proved at **York** by John Leng of Whitby Lodging-house Keeper the surviving Executor.

**MOFFETT Thomas.**

Personal Estate under £450.

13 March. The Will of Thomas Moffett formerly of Caroline-street but late of Easington-lane both in the Township of Hetton-le-Hole in the County of **Durham** who died 11 February 1878 at Easington-lane was proved at **Durham** by John Moffett of the Downs in the Township of Hetton-le-Hole Colliery Deputy Overman the Son the sole Executor.

21. Ibid., 20–30 September: 'A copie of Mr Andrew & Gabriel Mollett . . .'.

'Charles the second by the grace of God King of England Scotland France & Ireland defender of the faith and to the treasurer & under treas of our exchequer now & for the time being Greeting whereas we have taken into our service Andrew MOLLET & Gabriell MOLLET to be our Gardiners to keep our Royal Garden that is to be planted with fruit trees and flowers in St James Park between St James park House & the Spring Garden wall. Our will & pleasure is And we doe thereby require & authorise you out of such our treasure as is or shal be remainding in the Betwixt of our exchequer from time to time to pay or raise to be paid into the said Andrew and Gabriell Mollet or their Assigned and to the service of them, the yearly sume of two hundred and forti pounds of lawfull money of England for wages for keeping the said garden at the house b . . . wall feasts or earnings of the yeare that is to say at the feasts of the Birth of our Lord God, the Annunciation of the Blessed Virgin

Mary, the Nativitie of St John Baptist & St Michaell the Archangell quartely by even an equall proportione the first paiement there of to begin from the feast of St Michaell the arch angell which was in the year of our Lord God. One Thousand six hundred and sixtie. Any former or other warrant or grant to any other for the same imployment notwithstanding and these oure S . . . shall be you suficient warrant & discharge in this behalfe given under our privie seale at our Pallace of Westminster the Seaven & twentieth day of september in the thirteenth years of our Raigne. Flartgill Baron'.

June. Warrant to pay to Andrew and Gabriel Mollett 240*l.* yearly, for wages as the King's gardeners, and for them to have the lodgings in St. James's Park belonging to the gardeners. [*Docquet.*]

See Also:

**The Garden History Society**

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André Mollet, Royal Gardener in St James's Park, London
Author(s): Laurence Pattacini
Source: *Garden History*, Vol. 26, No. 1 (Summer, 1998), pp. 3-18
Published by: The Garden History Society
Stable URL: http://www.jstor.org/stable/1587232

Accessed: 23/12/2014 08:12

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To look well they should always be raised above the other plants, especially towards the centre or back. Grevillea robusta is another most useful plant. Aralia Veitchii and other choice varieties are most effective in any size and in any part of the group. Small plants towards the front make a good relief to Palms. Acalypha musaica from 1 to 3 feet high, on single stems, grown with Crotons, are very useful; but these must by no means become dry, or the leaves blister and fall. Acacia affinis and others of similar growth may be found a place, especially in large groups. Pandanus Veitchii, well coloured, in, say, 4 to 6-inch pots, give a great relief. Numerous other foliage plants may be used with advantage, yet those I have mentioned are hardly to be dispensed with in good competition. I have not mentioned Caladiums or Coleuses, each of which are telling, and C. argyrites in quantity renders a fine finish in the front line.—LATHYRUS.

(To be continued.)

## JUDGES AND THEIR WORK.

I HAVE read with regret the letter of your correspondent, "J. L. B." in your issue of the 22nd October last upon the above subject, which it is quite patent refers to this town. I have been connected for many years with floral societies in Leicester. The remarks of "J. L. B." are absolutely untrue, and even if correct are a direct insult to the gentlemen referred to. "J. L. B." says, "There are but few examples worth going to see, as many of the best exhibitors do not show now." My experience is that the exhibitors of both vegetables and flowers at the shows in Leicester are equal and in many cases superior to other shows, and that the best exhibitors have not decreased, which has been proved only this week by both the quantity and excellence of the exhibits and the large attendance of the public at our annual Chrysanthemum Show.

The gentlemen referred to in "J. L. B.'s" letter are acknowledged to be thoroughly practical and experienced gardeners, as proved by the positions they hold, and also the excellent condition in which both the cemetery, public park, and the clergyman's rosery are kept and also admired by thousands. The superintendent of the cemetery has not acted as judge for two years. From the tone of "J. L. B.'s" letter he has evidently been a disappointed exhibitor; but if so, and he resorts to such a meanness as to endeavour to ridicule the decisions of the gentlemen mentioned, why the sooner he ceases to become an exhibitor the better, as such men are not worthy to be connected with flower shows.—L. V. HEATHCOTE, *Secretary of the Leicester Chrysanthemum Society.*

[Our correspondent did not name Leicester, but simply mentioned "a Midland town."]

## VENUS'S EARLY DWARF CABBAGE.

I AM always glad to recognise any new or old varieties of vegetables when they come to the front if they are of sterling merit, but when any old variety is about to be distributed under a new name I think it is time to speak out. As we make vegetable-growing a specialty here, and early Cabbages one of our fancies, having grown most varieties I am not without considerable experience on the matter.

I see an article in your issue of November 12th from Mr. Oliver, Eslington Park, in reference to a Cabbage that is in the possession of Mr. Venus, Allerburn House, Alnwick, and I also observe it is to be offered to the public shortly as a new variety under the above name in the advertising columns of the *Journal of Horticulture*. Now before it is sent out I would advise Mr. Oliver and Mr. Venus to make sure whether it is not a good old sort named Cook's Early, which has been grown in this locality for the last thirty years. As I understand, it was selected from Cook's Early. I myself feel certain it is nothing else than Cook's Early, which I have grown for years, and I believe I am the possessor of a better selection of Cook's than Mr. Venus, which is now in the hands of a first-class seedsman, and has been sold by them as Cook's Early for the last year at the usual retail price for Cabbage seed, it being one of the four varieties I exhibited at the meeting of the Fruit Committee in London on the 10th February last, and for which I received a vote of thanks. I herewith send you a few for your inspection, and I may say that I never had a single plant that bolted, when all other varieties have done so more or less.

The variety in question was sent out by Mr. Cook, who was gardener thirty years ago to Mr. Collingwood, Dissington Hall, Newcastle-on-Tyne, and I believe he sold the stock to Mr. Dewar, seedsman, Newcastle-on-Tyne, and has remained ever since almost a local Cabbage.

I am growing eighteen varieties this year, and intend sending a collection next spring to the Committee in London, and would suggest that Mr. Venus also send some of his for inspection, as I think it would be to the interest of the public to know before it is distributed whether it is a new or old variety.—DAVID INGLIS, *Howick, Lesbury, Northumberland.*

[Under whatever name this Cabbage may be grown we can testify from the specimens we have received that it is a variety of great excellence.]

## CHESTERFIELD ROSES.

THE ancient town of Chesterfield boasts, amongst other attractions, of a church with a remarkable twisted spire. To a large number of travellers in this district probably the crooked spire is the only symbol by which they remember the town. The Derbyshire farmer is interested in its good market, and the rosarian and florist in the good Roses that are grown and sent out, both plants for stocking the rosery, &c., and cut blooms for the exhibition table.

Having received an invitation from Mr. R. W. Proctor to inspect his nursery I took an early opportunity to run over and see, more particularly his stock of Roses, which I found to be an exceedingly good one. The soil in that portion of the nursery devoted to Rose cultivation is rich, felt slightly springy to the tread, and rests upon a bed of clay. I noticed a little hair, lime, and spent bark, indicative of the refuse of the tannery, peeping out of the soil in places. The elasticity of the soil may be due to the particles of hair, which is doubtless beneficial in strong or clayey soils. The Roses are planted in rows, and have a south-western aspect partially screened from the north winds. They are young plants full of strength, some of this season's growths being over 7 feet long, many about 5 and 6 feet, of strong firm wood. There were not many blooms open, but fine hard buds were plentiful. All the best varieties are grown, and with one or two exceptions are budded low down on the Briar stock, and when transplanted the base of the new growth would be below the surface of the ground, the result doubtless of causing many varieties to emit roots of their own from the base of the young shoot. Mr. Proctor has taken many first prizes for cut Roses at Sheffield, Handsworth, and most other local exhibitions. In passing through the nursery I noticed several beds of fine seedling Carnations containing many good varieties. There were also beds of healthy double Pyrethrums, which are somewhat of a specialty here, but at this time of the year the most attractive beds were made up of Anemone japonica, alba and rubra, both very floriferous. These plants are very serviceable for cut blooms at a time when the outside beds are getting very bare and forlorn, and are not, I think, seen in the open border as often as they should. In most large towns, particularly on Saturday nights, large numbers of bouquets and buttonhole flowers are sold, but in my ramble through the town and marketplace I saw very few flowers for sale, and concluded that their absence indicated a lack of interest in the working population for floral decorations. Chesterfield can boast of a few good florists who are successful cultivators. Let us hope that their example may be the means of stimulating in the inhabitants a love for that delightful occupation, floriculture.—J. H. S.

## MR. E. MOLYNEUX.

WE consider this a fitting opportunity to present to the public, and more particularly the great body of Chrysanthemum growers, a portrait of one who has achieved such remarkable success in the culture of these flowers.

Mr. Molyneux was born near Helmsley, Yorkshire, his father at that time being gamekeeper to the Earl of Feversham, Duncombe Park, but the subject of this sketch evidently inherits some of the floral tastes of his grandfather, who lived for over forty years as gamekeeper at Nuneham Park, Oxford, where he was an ardent cultivator of florists' flowers, and was a successful exhibitor at many London and local shows, notably Oxford, where he frequently contended against the late Mr. C. Turner of Slough, and not always came off second best. Dahlias were his principal hobby, and he was the raiser of the "Nuneham Park" Onion.

We believe that Mr. E. Molyneux was never employed in a garden where Chrysanthemums were grown, except in the ordinary decorative way, neither has he had anyone to "coach" him; but seeing the splendid flowers produced by the Liverpool growers, and being impressed with their excellence, he was animated with a desire to equal them, and well he has succeeded, as his record will show, in winning such a large number of prizes in the best competition. This should be very encouraging to other young growers who desire to emulate him. He is a close observer of all small details in connection with the growth of the Chrysanthemum never over-estimating his own produce. He has received most valuable assistance from his brother, Mr. N. Molyneux, and from the young men employed under him, without which, he desires us to say, it would have been most difficult to achieve what he has done. He considers that by acting kindly, yet firmly, to those under him, he has contributed to his success. He receives much encouragement from his employer, W. H. Myers, Esq., who is a thorough enthusiast in all matters connected with the garden, which is admirably managed in every department, fruit and vegetables being produced in first-rate condition.

We presume that Mr. Molyneux, now having achieved his object in the challenge cup competition, will, in a series of articles, detail his practice for the benefit of others, as his experiments must now be about completed.

The following is the record of prizes won by Mr. Molyneux, and speaks for itself.—1880, Southampton, four firsts. 1881, Richmond, two first, one second; Southampton, two firsts and two seconds; Kingston, one first and one third. 1882, Southampton, five firsts; Kingston, five firsts, including the champion cup, and one second. 1883, Southampton, six firsts; Kingston, seven firsts, including the champion cup; Win-



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chester, four firsts. 1884, Southampton, six firsts; Winchester, five firsts; Kingston, six firsts, including the champion cup, and two seconds. 1885, Southampton, one first; Crystal Palace, seven firsts, one second, and one third; Kingston, eight firsts, including the champion cup for the fourth consecutive time, one second, and one third; Winchester, five firsts and one second. This represents the astonishing total, in six years, of eighty-six prizes, seventy-four of which were firsts. Comment on such a record is needless.

## CHRYSANTHEMUM SHOWS.

### WEYBRIDGE.

The eleventh annual Exhibition of the Walton, Weybridge, Oatlands, and Hersham Chrysanthemum Society was held in the Village Hall, Weybridge, on the 12th inst., and in the cut bloom department especially was a great success. The Society is fortunate in having as its President and Treasurer such excellent patrons of horticulture as H. Cobbett and H. A. Rigg, Esqs., and also many other supporters; the well-known and much-respected names of G. F. Wilson and James McIntosh, Esqs.; indeed the subscriptions equal the sum that is offered in prizes, "gate money" being relied on for meeting other necessary expenses.

Cut blooms, as above intimated, demand primary notice. So good were they, that but for Mr. Molyneux's exhibits the display would have been quite equal to that at Kingston, and there can be little doubt if Mr. Carpenter had concentrated his strength on the twenty-five-guinea cup class there, he would have equalled, if not displaced, Mr. Gibson. His blooms were characterised by symmetry, solidity, and "finish"—qualities that are bound to tell over mere size if accompanied by looseness. But to the classes.

In the open class of twenty-four, incurved blooms, distinct, the competition between Mr. Carpenter, gardener to C. J. Abbott, Esq., Walton, and Mr. Burns, gardener to H. A. Rigg, Esq., Hersham, was very close, but the former won the foremost place by the freshness, symmetry, and solidity of his flowers, Mr. Burns staging some larger, including grand examples of John Salter, Lord Alcester, and Empress of India. Mr. Carpenter staged—back row—Princess of Wales, Lord Wolseley, Lord Alcester, Queen of England, Golden Empress, John Salter, and Golden Queen. Second row—Guernsey Nugget, Mr. Brunlees, Refulgence, Princess of Teck, Baron Beust, Lady Hardinge, and Barbara. Front row—Bronze Jardin des Plantes, Jeanne d'Arc, Prince Alfred, Mrs. W. Shipman, Mr. Jay, Venus, Cherub, and Eve; a fresh, even, excellent stand. In the members' class for the same number of incurved blooms Mr. Carpenter was again first; Mr. Plowman, gardener to C. L. Lavers Smith, Esq., Walton, a good second, and Mr. Burns third. Seven stands of twelve incurved blooms were staged, Mr. Goddard, gardener to C. Humby, Esq., Hersham, securing the first position with remarkably neat and well-finished examples of Empress of India, Golden Empress, Golden Queen, Lord Alcester, Mr. Jay, Beauty, Mrs. Shipman, Mr. Brunlees, Jeanne d'Arc, Empress Eugénie, and Prince Alfred. Mr. Millican, gardener to H. Cobbett, Esq., was a close second with larger but looser blooms, and Mr. Gardener, gardener to R. H. Turner, Esq., Walton, third with particularly neat flowers.

Japanese blooms were of great excellence, producing a brilliant display. In the class for twenty-four varieties Mr. Carpenter secured the first place with, in the back row—Elaine, Comte de Germiny, Meg Merrilees, Madame C. Audiguier, Fair Maid of Guernsey, Baronne de Prailly, Boule d'Or (grand), and Mdlle. Lacroix. Second row—Mons. Henri Jacotot, Hiver Fleur, M. Delaux, Soleil Levant, Garnia, Madame Eugène Pourquie, Album planum, and M. Burnet. Front row—Thunberg, Daimio, Duchess of Albany, La Nègre, Criterion, Mons. Ardène, J. Delaux, and Peter the Great. Mr. Burns was an exceedingly close second, and Mr. Plowman third. Six stands were arranged in the class for twelve varieties, Mr. Goddard winning the

Fig. 69.—Mr. E. Molyneux.



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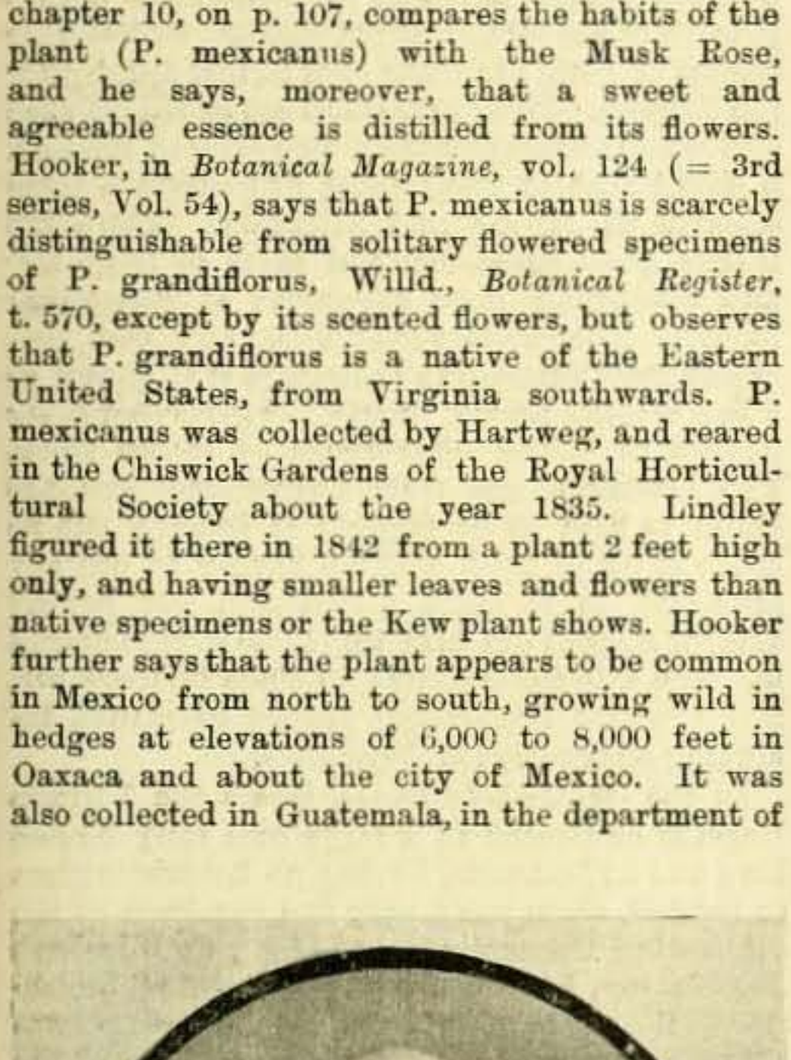
that Hernandez, *Nov. Plant. Mexico, &c.*, Vol. IV., chapter 10, on p. 107, compares the habits of the plant (P. mexicanus) with the Musk Rose, and he says, moreover, that a sweet and agreeable essence is distilled from its flowers. Hooker, in *Botanical Magazine*, vol. 124 (= 3rd series, Vol. 54), says that P. mexicanus is scarcely distinguishable from solitary flowered specimens of P. grandiflorus, Willd., *Botanical Register*, t. 570, except by its scented flowers, but observes that P. grandiflorus is a native of the Eastern United States, from Virginia southwards. P. mexicanus was collected by Hartweg, and reared in the Chiswick Gardens of the Royal Horticultural Society about the year 1835. Lindley figured it there in 1842 from a plant 2 feet high only, and having smaller leaves and flowers than native specimens or the Kew plant shows. Hooker further says that the plant appears to be common in Mexico from north to south, growing wild in hedges at elevations of 6,000 to 8,000 feet in Oaxaca and about the city of Mexico. It was also collected in Guatemala, in the department of



MR. EDWIN MOLYNEUX.

Quiché, at an altitude of 6,000 feet, by Mr. J. Donnell Smith and others. Schlechtendal considered P. mexicanus to be the Acuiloth or climbing aquatic shrub of Hernandez, who figured it and alludes to it as growing in wet places, and either creeping on the ground or as scrambling up trees. "At Kew Gardens, P. mexicanus is trained on the south wall of the Orchid house, where it flowers freely annually in June, but it is not hardy" (Hooker). The perfume is so deliciously aromatic that the plant might be worth the attention of the cultivators of perfume in South France and elsewhere. Other remarks about this species will be found in the *Gardeners' Chronicle*, 1883, vol. i. (new series), p. 753. *F. W. Burbidge.*

## MR. EDWIN MOLYNEUX, V.M.H.

THERE are few better known men among gardeners than Mr. Edwin Molyneux, formerly gardener to W. H. Myers, Esq., Swanmore Park, Bishop's Waltham, and now steward to the same gentleman at the same place. Mr. Molyneux's fame rests primarily upon his successes during many years in the cultivation and exhibition of Chrysanthemums. What Chrysanthemum grower is there but has read Molyneux's *Chrysanthemums?* But Mr. Molyneux's experience is not limited to the growing of Chrysanthemums, and we have the pleasure to publish his portrait for the first time in the *Gardeners' Chronicle* in connection with the exhibition of vegetables to be held next week at Chiswick. Many years ago Mr. Molyneux exhibited vegetables for competition, and during all the subsequent years he has been called upon frequently to judge the produce of others, hence the hints to exhibitors he has written on p. 220 will be helpful to beginners. The following particulars of Mr. Molyneux's career are given in his own words:—

"Born at Sproxton, near Helmsley, Yorkshire, I commenced my gardening career at Stillington Hall, York, where I stayed seven years, getting a thorough grounding in all departments of a general good garden, where no department was neglected for the sake of giving greater attention to another. The next two years I spent under Mr. Campbell at Sutton Hall, near York, where the cultivation of fruit-trees, kitchen and flower gardening were the main features. After this a short time was spent in Messrs. Backhouse's nurseries in York, and from there I went to Tong Hall, near Leeds, a garden especially noted for Pineapple culture. After making a brief stay there I went to Messrs. F. & A. Dicksons, Chester, who sent me to Major Walter's garden near Birkenhead as foreman, where I stayed three years. Grapes, bulbous plants, especially Hyacinths, Tulips, &c., were exhibited frequently and successfully from these gardens at the shows of the Royal Botanic Society in Liverpool. From there I removed to a small place at Rock Ferry, taking full charge, and won many prizes for exhibits of fruit, especially Grapes, at Liverpool, Manchester, Birkenhead, &c. Here I stayed two years, and then moved to Camp Hill, Woolton, Liverpool, where I remained nearly two years with the father of my present employer, who afterwards bought Swanmore Park, to which place I removed in September, 1878.

"All the houses were rebuilt, and an entirely new garden was formed, to which additions have been made at several times. The garden is what is known as a general one, and all departments are given equal attention. Perhaps the principal features are Chrysanthemums, Grapes, vegetables, hardy plants, shrubs, trees, and lately Roses. Through the great kindness of my employer, who is passionately fond of gardening in all its phases, I have been permitted to hold the privilege of membership of one of the Royal Horticultural Society's Committees for many years."

Mr. Molyneux was awarded a Victorian Medal of Honour in Horticulture at the time of the initiation of the Medal in 1897. His knowledge of practical gardening and horticultural exhibitions is unusually extensive.

# TREES AND SHRUBS.

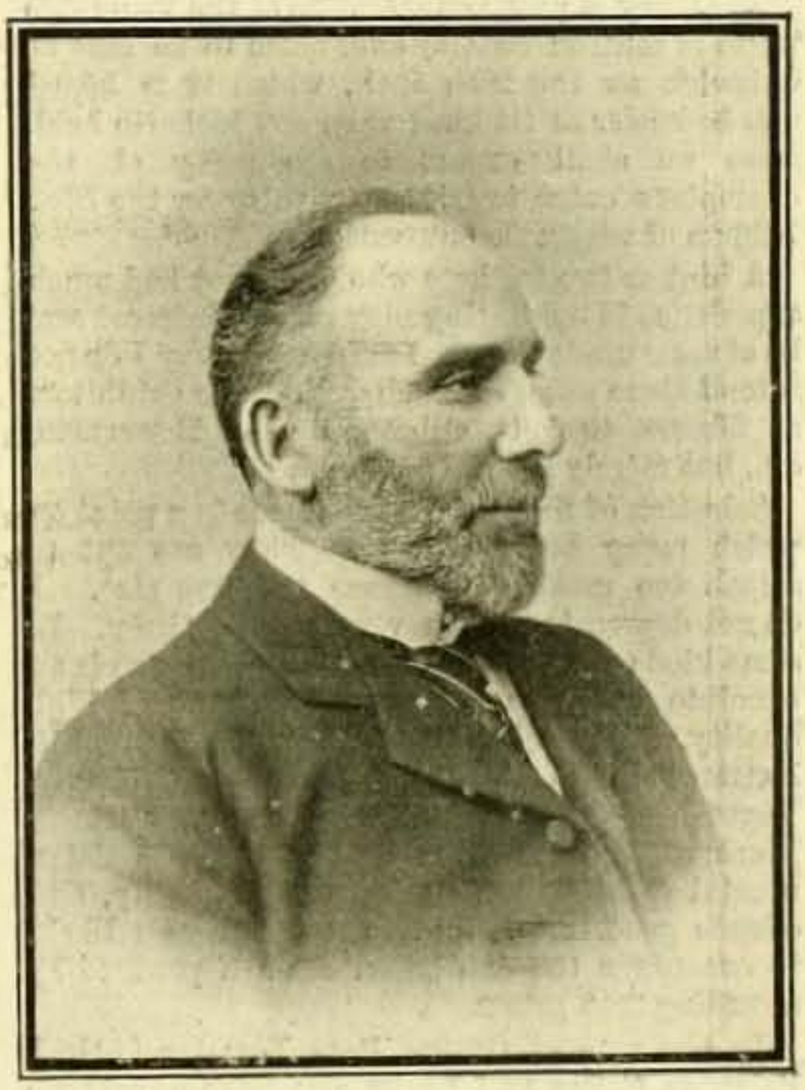
### CORNUS AUREA SPATHI.

THE subject of this note forms a very desirable and effective shrub associated with others, or as a solitary specimen on a lawn, the beautiful soft-yellow tint of the foliage forming a striking and pleasing contrast to the surrounding green-leaved plants. To form specimen bushes, the plants from the earliest stage should be cut into shape annually in the autumn, when they have shed their leaves. The shoots, trimmed off from 12 to 18 inches in length, may then be inserted 4 or 5 inches deep in any kind of soil, but preferably in a sandy loam, in rows from 15 to 18 inches apart, and at about 9 inches in the rows. Cuttings thus treated will root in due time and make useful plants the following year, ready for transplanting after the fall of the leaf.

Other good varieties of the Dogwood are C. alba, which attains to from 5 to 10 feet in height, according to quality of soil and climatical conditions—it has deep red bark, oblong leaves, and white flowers; C. aurea elegantissima tricolor fol. variegatis (Silver-striped), and C. sanguinea (common Dogwood), and one of the most effective of our native shrubs. The bark of the young shoots being bright red, the flowers white, and the fruit purple, renders it a very telling and desirable subject to be included in all shrubbery borders, and also to be planted in irregular clumps on the verge of woods, on either side carriage-drives, &c. All the species of Dogwood are easily rooted, robust growers, and more or less telling in effect, and therefore should be more generally and extensively grown than they now appear to be. *H. W. W.*

## MR. GEO. WYTHES, V.M.H.

IN affording our readers a portrait of Mr. George Wythes, head gardener to the Duke of Northumberland, Syon House, Brentford, he may be described as a typical out-of-doors gardener. Although being at Syon, he is charged with the care of one of the largest conservatories in England, and with a large number of other



MR. GEORGE WYTHES.

plant and fruit-houses, the natural bent of the man is to take the greater interest in the vegetable and fruit gardens, and in the pleasure-grounds and arboretum. Few gardeners have been awarded a greater number of medals by the Royal Horticultural Society for exhibits of vegetables, fruits, and plants which were contributed some years ago from the Syon gardens. He holds two Gold Medals at least for very complete collections of vegetables staged at the Drill Hall. This fact alone should be sufficient to stamp Mr. Wythes as a vegetable specialist; but his interest in vegetables has led him further than mere cultivation, he having raised many new varieties of Potatos, Cabbages, Vegetable Marrows, Artichokes, &c.; and of fruits, several good varieties of Melon. Most of these have been recognised by the Fruit and Vegetable Committee of the Royal Horticultural Society, and have been distributed through the trade to gardens over the country.

Mr. Wythes has a note upon "Improvement in Vegetables" on p. 221, and in our next issue he will have something to say about certain new varieties. For many years Mr. Wythes has been an active member of the Royal Horticultural Society's Fruit Committee, and was one of the original "sixty" gardeners awarded the Victoria Medal of Honour in Horticulture in 1897. Mr. Wythes has been at Syon for the past seventeen years, having succeeded the late Mr. Woodbridge, and was formerly gardener to the late Lord

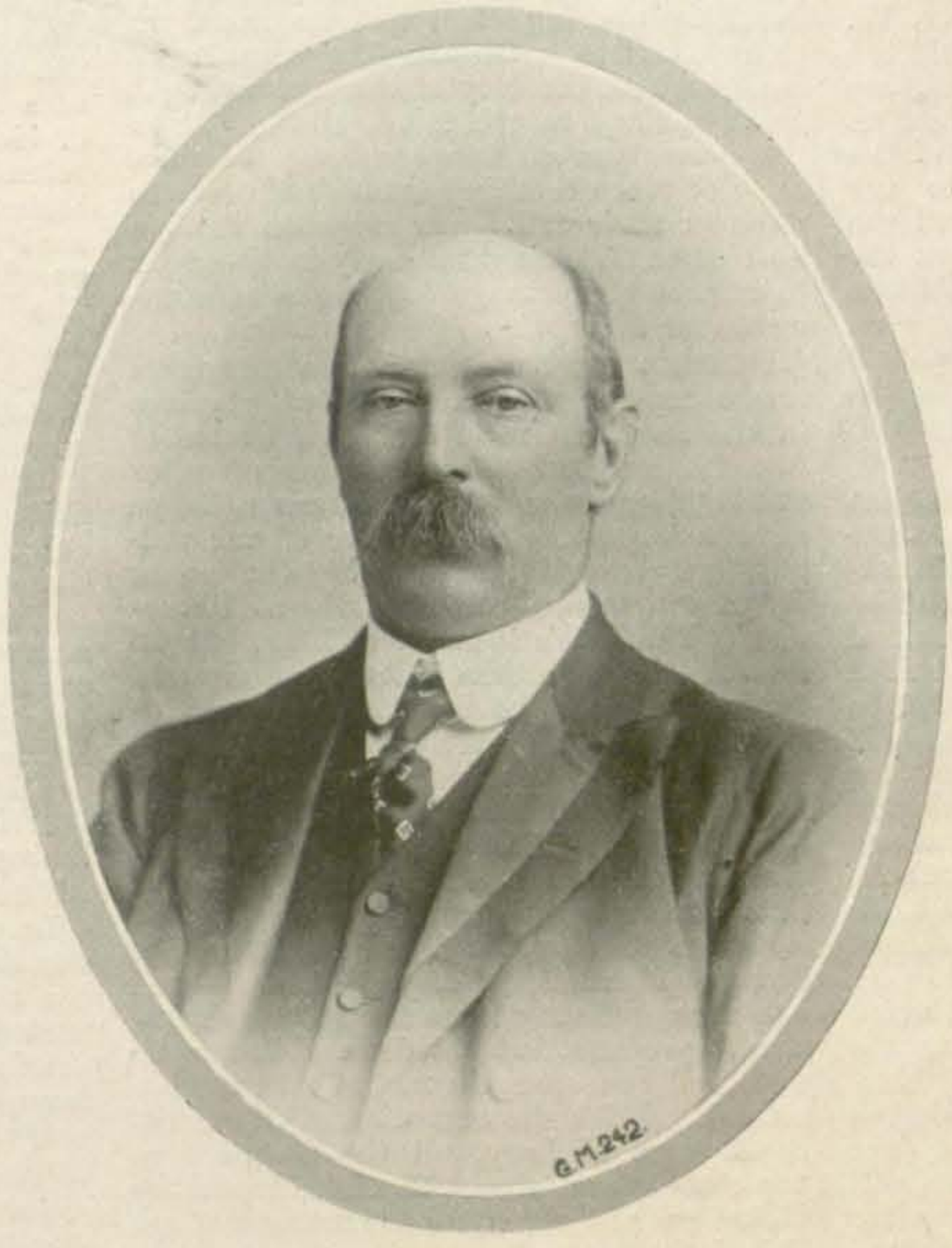
VOL. LI.—No. 2,835. SATURDAY, FEBRUARY 29, 1908.

# THE GARDENERS' MAGAZINE.

## NOTES OF THE WEEK.

### Solanum etuberosum.

Mr. A. W. Sutton's paper read at the Linnean Society on Thursday, the 20th inst., although dealing with all the recognised species of tuber-bearing Solanums which he had been able to acquire and study had for its backbone, so to speak, the quite recent results of sowing seed of S. etuberosum which, after twenty years absolute sterility, had eventually yielded a single apple or seed-vessel, whence twenty plants had been successfully raised. When it is considered that all potato raisers sow seed from time to time as a means of obtaining new varieties, since the potato plant apparently does not produce bud variations yielding new forms, the mere fact of this sowing of S. etuberosum appears to be of trifling importance, but in point of fact by its results it promises to be of very great importance indeed. In the first place it has always been a puzzle to those who take an interest in vegetable pedigrees, to know which of the known wild species of Solanum now existing had given us our culinary potato, which, as everyone knows, has become one of our greatest and most valuable food and industrial factors. The desire to know this became also accentuated when it was considered that as continued asexual cultivation tended to weaken the constitution and render it more and more liable to the well known potato disease, a hark back to the original wild stock might probably give a fresh lease by infusing some of the original vigour and resistant power. S. etuberosum though differing from S. tuberosum, i.e., our common potato, in the haulm and other specific characters, was the only accepted wild species which yielded tubers at all like the commercial ones. When first tested twenty years ago these were no larger than marbles, and from its botanical name which really means the tuberless solanum, it is assumed that under wild and starved conditions they might be still further reduced so far as to be some justification for the name. Now, however, after twenty years, the tubers have become much larger, and rank, indeed, with fair sized ordinary ones in appearance, and even in flavour. One very essential feature, however, apart from the minor specific differences already alluded to, is that the pollen grains of S. etuberosum agree with those of all truly wild species in being evenly oval, a long egg-shape; while those of the cultivated potato are irregular and vary much in size. The most extraordinary fact has, however, transpired from the one sowing which has been so far possible, that despite these differences, that of the pollen included, which is the most important, the batch of offspring resulting exactly resemble in their general character and their varied nature, a batch raised from the common potato S. tuberosum. No expert, ignorant of their origin, would hesitate in pronouncing them to be S. tuberosum pure and simple. The pollen grains, however, in the one plant examined in this connection, were of the wild oval even form. It must have been a revelation to many of those who were privileged to inspect the parallel crops raised under like conditions from the two plants, viz., S. tuberosum (var. Blue Giant) and S. etuberosum that such a varied brood could issue from one seed pod. Twenty different forms resulted from as many plants raised, varying in size, shape, and colour; white, red, purple, rose, etc., while one was actually purplish-black throughout precisely like a well known S American cultivated variety. Naturally the Mendelians are all agog to know what the next generation will yield, a curiosity which Mr. Sutton may be relied upon to satisfy without delay. Was this batch due to a natural cross by means of pollen from S. tuberosum in other parts of the field, is a legitimate question, this, however, Mr. Sutton considers not to have been likely, self-fertilisation appearing to be the rule. In any case the evidence strongly points to the origin of our precious potato having been found at last, and since, in addition, during twenty years' cultivation, the disease has failed to find a single weak spot in S. etuberosum, the primary object of research, a disease-resisting tuber would also appear to be attained.




MR. EDWIN MOLYNEUX, V.M.H.

**Mr. Edwin Molyneux, V.M.H.,** whose portrait we have the satisfaction of giving in this issue, is so well and widely known in both horticultural and agricultural circles as to render it wholly unnecessary to make otherwise than the briefest reference to the splendid work he has accomplished in the course of an extremely active life. Possessing in an eminent degree the determination characteristic of the higher type of Yorkshireman, and ability of a high order, he was not long in taking a prominent position among practical horticulturists after he had the sole responsibility of a garden placed upon his shoulders. There is no occasion to pass under review his training during the early part of his gardening career, for it is sufficient to know from his subsequent achievements that it must have been

thorough, and on lines that conduce to a keen interest being taken in both the scientific and practical aspect of garden management. Many years ago, when the Kingston Chrysanthemum Society was at the zenith of its popularity, a valuable challenge vase, which had to be won three times, was annually offered for competition, and of these vases Mr. Molyneux, who was then head gardener at Swanmore Park, succeeded in winning several. These splendid achievements, and the winning of innumerable prizes in other classes at Kingston and elsewhere, placed him at the head of chrysanthemum growers, and this position he held until he retired from the arena. It may be of interest to mention that Mr. Molyneux's successes as an exhibitor were largely due to his appreciating the necessity of a proper balance between size and finish, and in the latter attribute must be included colour. While growing and exhibiting chrysanthemums with such remarkable success, Mr. Molyneux obtained much distinction as a cultivator of fruits and vegetables, and the gardens under his charge formed an excellent model of what a horticultural establishment of the highest class should be. When, many years ago, a change was made in the management of the Swanmore home farm, this, as well as the gardens, were placed under his charge by his appreciative employer, W. H. Myers, Esq. Mr. Molyneux held the dual position for several years, but as that involved too great a strain upon him he was relieved of the responsibilities of the garden. It would be difficult to say whether Mr. Molyneux has achieved the highest success in the garden or on the farm, nor is it necessary we should make the attempt. We can, however, say that while wholly engaged in agricultural matters, he has in no way changed in the strong affection he has had for the garden from his youth upwards.

**Our Spring Number.**—As announced in our issue of the 22nd inst., the Spring Number of the GARDENERS' MAGAZINE will be published on March 7, and be of quite exceptional interest. The first of two profusely illustrated articles entitled "Some Famous Cornish Gardens," will be given, and this, we venture to suggest, will constitute a feature of much interest, for the information it will contain relating to the many beautiful plants that have a place in the principal gardens of Cornwall. The other contents will also be such as to strongly appeal to those who are concerned with the garden and its management. Mr. Prinsep will describe the method by which he has achieved so much success in the cultivation of deciduous calanthes. Mr. Stevenson, who achieved so high a degree of success at the exhibition of the National Sweet Pea Society last year, will write on the cultivation of sweet peas for exhibition; Mr. S. W. Fitzherbert will contribute an essay on garden seats; Mr. George Woodgate will state the advantages of spraying fruit trees in winter; Mr. A. Petts will describe the method of procedure by which gardens may be beautified with annuals. Mr. E. Molyneux will write on the advances that have of late years been made in the improvement of lilacs; Mr. T. Coomber will give a short list of the finest long-keeping apples, and Mr. T. H. Slade will give a selection of winter-flowering carnations of special value for private gardens. The care of garden tools, the use of ivy-leaved pelargoniums grown in pyramidal form in the flower garden, moon daisies, standard weeping roses, and some other subjects will also receive attention. In addition to the numerous illustrations in black and white, a plate in colours of garden tulips will be presented with the issue.

**Horticultural Club.**—The next house dinner of this club will take place on Tuesday next, March 3, at six p.m., at the Hotel Windsor. The lecture will be by Mr. C. E. Pearson on "Bird Eggs and Evolution of Protective Colour," and will be illustrated with lantern slides.

**Beech Coccus at Burnham Beeches.**—That most destructive of woodland pests, the Beech Coccus (Cryptococcus fagi) has been found in considerable numbers at Burnham Beeches, and the City of London's Coal, Corn, and Finance Committee is taking active steps to stamp it out. The pest has also been discovered among the beeches on a neighbouring estate, the owner of which has consulted the Board of Agriculture on the subject. The committee, alive to the insidious and destructive nature of the attack, has appointed a special sub-committee to deal with the pest by the washing and spraying the affected trees and by other treatment; and it is confidently hoped that the scourge will be stamped out before any permanent or extensive damage is done.

**Damage to Trees at Sandringham.**—The severe gale that passed over almost the whole of the country on Saturday evening last left its mark in many districts. On the King's estate at Sandringham the fury of the gale wrought great damage to the trees, blowing down large numbers of fine oaks and beeches, some of these crashing through the estate walls in their fall. Sir Dighton Probyn hurried to Sandringham early in the week to inspect the damage and make arrangements for its repair so far as possible.

**Pecan Nuts.**—The Pecan nut trees are occupying the attention of planters in the South Atlantic and Gulf States of America almost to the exclusion of other nut-bearing trees. The Pecan (Carya olivæformis) is a close relative of our walnut, and several members of the genus Carya are known commercially as Hickories. The Pecan is hardy at Kew, but we do not know whether it has ever ripened fruits there. The nuts are very hard-shelled, but as they are now being cracked and graded by machinery, they are forming a very considerable industry in the Southern United States. There are several varieties cultivated, these having fruits or nuts of varying size and shape; popular sorts are Bradley, Dewey, President, The James, Randall, Daisy, Stuart, and Frotcher. Young trees are rather expensive to produce, but the demand has to be met, and consequently methods have improved. With the exception of C. amora, the Swamp Hickory, all the Caryas are tap-rooted, and almost fibreless, hence the difficulty of successful transplantation. This is overcome by sowing the nuts in trenches in the bottom of which is laid a strip of fine wire-netting or wire cloth; this prevents the formation of strong tap-roots, and it is said that from every indentation made in the root by the wire, strong roots start when the plant is set out in the orchard. Of course, budding or grafting are necessary to obtain the best varieties. From two to five years are necessary for the production of a saleable tree.

**United Horticultural Benefit and Provident Society.**—The annual meeting of this society will be held at the Royal Horticultural Society's Hall, Vincent Square, Westminster, on Monday, March 9, when the chair will be taken at 8 p.m.

**Messrs. James Carter and Co.,** High Holborn, have received the Royal Warrant of Appointment as seedsmen to his Majesty the King of Siam.

**Irrigation in Egypt.**—At the Royal Society of Arts, under the presidency of Lord Cromer, Sir Hanbury Brown read a most interesting paper on "Irrigation in Egypt under British Direction," on Tuesday, February 25. Sir Hanbury Brown showed how largely the prosperity of Egypt depended upon a thorough system of irrigation, and he pointed out that the cotton crop had doubled in quantity and value till it now realised £15,000,000, the cultivatable area had increased by a million acres, and land had doubled in value since 1883. The Assouan Dam and its connections were increasing the prosperity of Middle Egypt, and the huge reservoir insured the cotton crop of Lower Egypt. Lord Cromer added that £20,000,000 might advantageously be spent on irrigation works in Egypt during the next fifteen or twenty years.

**Baltic Rose and Sweet Pea Society.** — Under this title a horticultural society, devoted to the culture of the rose and the sweet pea, was organised last year in the City of London, the association being open only to members of the Baltic Mercantile and Shipping Exchange, Lloyd's, and subscribers to the Corn Exchange, with the clerks in their employ. The first exhibition was held in July, and as a result a sum of £20 was afterwards divided between the Corn Exchange Benevolent Society, the Cereals, the Shipbrokers' Benevolent Society, and the Oilseed Benevolent Association. It is proposed to hold a second show in July next. The hon. secretaries are, Mr. B. Hugo and Mr. F. T. Barker, the Baltic, St. Mary Axe.

**Basic Slag and Lime.**—In an interesting report on manurial experiments on grass land, issued from the University College, Reading, Professor Percival points out that on grass land manured with basic slag, the cattle ate the herbage bare, neglecting plots manured with other substances. Professor Percival suggests the use of basic slag in place of lime or chalk, but while basic slag is most certainly helpful on land in which lime is short or deficient, it by no means follows that the lime it adds is sufficient to render direct liming unnecessary.

**Home-Grown Telegraph Poles.**—In answer to a question put to him in the House of Commons recently, Mr. Buxton replied that telegraph poles were imported because suitable poles could not be obtained at home. He had invited tenders from all parts of the country, and had, as yet, only been able to place a small order for larch poles with a Welsh firm.

**Small Holdings.**—We understand that in Buckinghamshire about 330 applications have been made for small holdings, the total area applied for being 6,500 acres. In Wiltshire there are about 300 applicants for a total of about 6,000 acres, and in Kent there are 281 applicants for 3,805 acres.

**Women's Horticultural Exhibition.**—The Women's Agricultural and Horticultural International Union is organising an exhibition and sale of farm and garden produce in the gardens of the Royal Botanic Society, Regent's Park, London, N.W. There will be classes for groups of flowers, roses, carnations, sweet peas, choice fruits, hardy fruits, designs for country and suburban gardens, and decorative effect of flowers. The exhibition will be held on Wednesday, July 15.

the gardens of Holly Lodge that the Baroness used to give her famous garden parties, which were attended by so many celebrities. The late Mr. Burdett-Coutts made an effort to dispose of the property when it came to him on the death of the Baroness, but being unable to do so, he lived there himself until his own decease.

**The Pruning of Fruit Trees and Roses.**—A useful little booklet on pruning fruit trees and Roses, issued by "Country Life," Ltd.,* appears at an opportune time, for the pruning season is almost on us. The author is Mr. Owen Thomas, V.M.H., and his remarks are concise and to the point; indeed, some may consider them too condensed, but he touches on all the main details. He deals with each section of the Rose, after a few general observations on the "Pruning of the Rose Tree." He recommends hard pruning of Roses after planting; in the case of the dwarf kinds he advocates cutting the shoots of newly planted Roses to within three buds of their base, and, in the case of the weaker ones, to two or even one bud. This is the method adopted by Rose nurserymen, but many growers, and especially amateurs, hesitate to cut their plants so drastically, in the mistaken belief that they are spoiling them. In the section on fruit trees Mr. Thomas has concise chapters on the pruning of all kinds of hardy fruits, as well as Vines, Peaches, Figs, and others grown indoors. With regard to pruning Currants and Gooseberries, we think this work is done too early, especially in gardens near towns, for sparrows are very destructve to the buds, and if the pruning is deferred until after the New Year, many of the lower buds escape the birds.

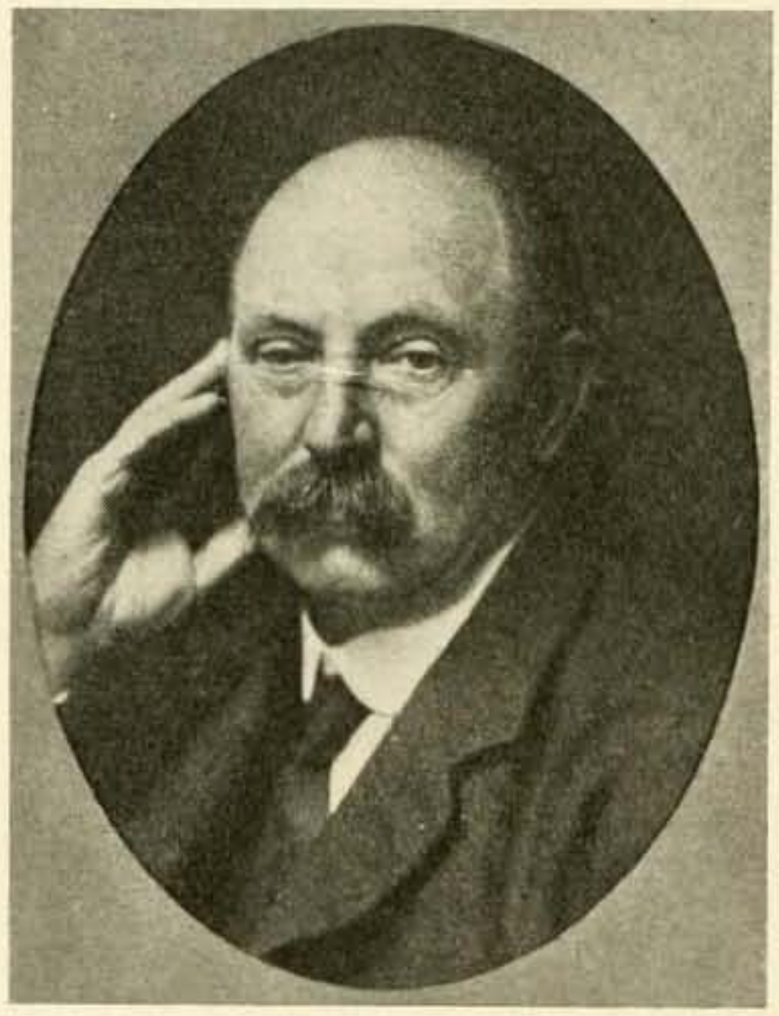
**Presentation of a Golf Course to Glasgow.**—A new golf course has been presented to the City of Glasgow by the Reid family—Sir John Reid, Mr. Hugh Reid, Mr. Andrew T. Reid, and Mr. Walter M. N. Reid. The course occupies a site just outside the city boundary, north of Stobhill Hospital. It is roughly of triangular outline, and bounded on the north side by the Auchernairn Road.

**Poisonous Fruited Plants in Public Gardens.**—A matter of considerable importance to those responsible for the care of public gardens and open spaces has been decided in a case recently brought before the Judges of Appeal in the House of Lords. A boy aged seven years, while in the Botanic Gardens, Glasgow, picked and ate berries of Atropa Belladonna (Deadly Nightshade) and died on the following morning. The poisonous berries were growing in a small plot immediately adjoining a playground frequented by children, and the plot, which included various economic plants, was enclosed by a wooden fence, access to which was gained by the public through a gate. The respondent maintained that the death of his child was solely due to the fault of the Corporation and its servants, and the Appeal Court upheld this contention, awarding the father £600 damages. This decision opens up a serious question for public park authorities, and such places as Botanic gardens, where valuable work is done in providing students and others interested in economic plants with living material. The solution would appear to be that adopted by Kew in the case of their old Students' Garden, access to which is given only to those interested in the plants. The educational value of parks and open spaces is almost as valuable as the pleasure they afford to visitors, and it will be a thousand pities if this aspect of such institutions is lost by fear of heavy law costs through such cases as the above.

**Unusual Injury to Apples.**—Many growers have been perplexed this season to know the cause of their Apples being injured, generally around the eye, the tissue there being discoloured and hardened, quite spoiling the appearance of the fruit. Even old growers have never seen such injury before, and its cause has been the subject of much speculation. By some, it has been attributed to injury by spraying; by others, to frost. It has been almost conclusively proved by the Ministry of Agriculture that frost is the reason, and that the injury was caused by freezing at a time when moisture had condensed on the lower part of the fruit as it hung on the tree, that is, the eye. That spraying is not responsible is known from the fact that in some orchards where the injury has been very prevalent, no spraying has ever been done. The variety Bramley's Seedling seems to have been particularly affected by this superficial injury.

**Award of the Symons Memorial Medal.**—The Royal Meteorological Society has awarded the Symons Memorial Gold Medal to Col. Henry E Lyons, in recognition of distinguished work in connection with meteorological science. Col. Lyons is Director and Secretary of the Science Museum, and it will be remembered that he was Director of the Meteorological Office during the latter part of the war.

**New Public Gardens at Brighton.**—The Town Council of Brighton has decided to throw open the eastern side of the celebrated Pavilion and beautify this part much in the same way as was done when the Victoria Gardens were formed. The whole of the eastern boundary wall, the iron railings, mounds and shrubberies are to be



THE LATE MR. EDWIN MOLYNEUX, V.M.H.

(See p. 281.)

swept away and a promenade 22 feet wide made, nearly three feet higher than the lawn. The scheme includes a belt of grass and flower beds, and on the lawn opposite the windows of the saloon and two drawing-rooms will be three pools of water. It is also proposed to erect two pagodas or domes, on pillars, in the eastern style, to serve as a framework for climbing Roses. The mounds and shrubberies that conceal the lawn at the northern end of the pathway from the grounds will be cleared away and new vistas opened up. The scheme, which meets with the whole-hearted support of the inhabitants, has been drawn up by Mr. B. H. MacLaren, Superintendent of the Public Parks and Gardens, and the local Press records it "as a great personal triumph for the deviser, who has revealed himself as a real artist in landscape gardening." The cost is estimated at £4,500 and that of the road-widening £5,368, much of which will be spent in labour that will help to solve the unemployed problem in the town. Those who are familiar with the public parks and spaces of Brighton will know how excellently well they are maintained and that they are object lessons to those corporate bodies which unwisely place their public parks and gardens under some other department, generally the engineering and surveying section. There are plenty of gardeners in this country capable of assuming the full responsibilities of the laying out and upkeep of public parks and pleasure grounds, but it is a regrettable fact that only a few up-to-date boroughs have a special park's department with a gardener at the head.

**Appointments for the Ensuing Week.**—Monday, November 28: National Chrysanthemum Society's Floral Committee meeting. Tuesday November 29: Royal Horticultural Society's Committee meeting; British Carnation Society's annual dinner at the Holborn Restaurant. Wednesday, November 30: British Carnation Society's show at R.H.S. Hall; Irish Gardeners' Association and Benevolent Society's meeting. Thursday, December 1: Manchester and North of England Orchid Society's meeting.

**"Gardeners' Chronicle" Seventy-five Years Ago.**—*Horticultural Society's Gardens, Turnham Green.*—The Garden Committee, in connection with the Council, having determined to provide a reading room for the improvement of the men in the garden, it opened for the first time on Monday evening last. An introductory lecture was delivered by Professor Lindley, who commenced by stating that the object of the room was to enable the young men in the garden to improve their minds and to assist them in obtaining that amount of knowledge which alone could render them superior to the common herd of men. Knowledge, he said, was power, and offered the only means of raising gardeners in the scale of society, and of improving their wages; and this he went on to illustrate at some length. The sort of knowledge most essential to gardeners was stated to be the art of gardening, of observing, the knowledge of vegetable physiology, botany, physical geography, and a certain amount of chemistry, with other subjects belonging to usual education. Of these, not the least important was mentioned to be the art of observing and this was exemplified by a variety of very interesting experiments, all tending to prove that more than a mere superficial examination of subjects is often necessary in order to arrive at truth. Besides the intrinsic value of these kinds of knowledge, in themselves, they were also said to promote the formation of orderly and systematic habits, qualities of paramount importance in a gardener. The art of reading was also introduced to consideration, more especially the necessity of making notes of what is read. The walls of the room—at present a temporary one—are furnished with maps and plans of continental gardens, and it was mentioned that if the objects of the room were likely to be appreciated by the men (as they no doubt will be), the Council would give them further support, and future lectures would be occasionally given. Besides various kinds of mathematical instruments, we understand that the library now contains about 175 different works, the greater part of which are of direct importance to the pursuits of gardeners, and all of which are suited to enlarge and improve the mind.—*Gard. Chron., November* 26, 1846.

**Publications Received.**—*Bees for Pleasure and Profit.* By G. Gordon Samson. Crosby Lockwood and Son, 7, Stationers' Hall Court, Ludgate Hill, E.C.4. Price 3s. 10d. post free. —*The Garden Calendar.* A quotation for the lover of gardens for every day in the year. Cecil Palmer, Oakley House, Bloomsbury Street, W.C.1. Price 2s. net.—*Pigs or Poultry for Disabled Soldiers.* By F. G. Paynter. Published by F. G. Paynter, The Lawn, Lampton Road Hounslow, Middx.—Market Nursery-Work Series Vol. I. *Glasshouses and the Propagation of Plants.* By F. J. Fletcher. Vol. II. *Special Glasshouse Crops.* By F. J. Fletcher. Benn Bros., Ltd., 8, Bouverie Street, W.C. Price 4s. 6d. per volume. *Pot Plants and How to Preserve Them.* By W. Truelove. "Country Life," Ltd., 20, Tavistock Street, W.C.2. Price 9d. net. *Fruit Growing for Profit.* By J. C. Newsham. C. Arthur Pearson, Ltd., Henrietta Street, W.C.2. Price 6s. net.

* *How to Prune Roses and Fruit Trees.* By Owen Thomas, V.M.H. "Country Life," Ltd., 20, Tavistock Street, W.C. Price 9d. net.

secretaries, Mr. H. V. Taylor, representing the Ministry, and Mr. W. R. Dykes, the R.H.S., and to the readers of the papers, both of which were carried with acclamation. He then expressed the pleasure all had felt at the presence of so many representatives of countries outside the British Isles, all of them desirous of furthering the cultivation of one of our most important crops, and said that co-operation, such as Conferences of this kind makes possible should be one of the most powerful aids in increasing the prosperity and well-being of the respective nations.

## NATIONAL POTATO OF GREAT BRITAIN AND IRELAND.

NOVEMBER 17 and 18.—A considerable time has elapsed since the original National Potato Society provided a display in London, so that an exhibition devoted solely to the Potato is somewhat of an event in the metropolis. The re-constituted society held annual shows at Birmingham last year and in 1919, and that now under notice, which was held at Vincent Square, was its first in London. In addition to the two days show, there was an International Conference on the day prior to, and throughout the period of the show.

On the Wednesday, after the presidential address by Sir A. D. Hall, K.C.B., the following subjects were dealt with: "Breeding, Selection and Development Work in U.S.A.," by Mr. Wm. Stuart, of the Department of Agriculture, Washington. "Breeding, Selection and Development Work in Britain," by Messrs. F. J. Chittenden, Donald McKelvie and Wm. Robb. "The Industrial and Commercial Uses of the Potato," by Mr. H. V. Taylor. "The Early Potato Industry," by Mr. J. M. Hannah, and "The Degeneration of the Potato," by Dr. R. N. Salaman.

The morning of the second day was devoted to judging the exhibits, and the official opening of the Show by the Minister of Agriculture. In the afternoon, there were papers on "Wart Disease of Potatos," by Messrs. V. Blackman and Wm. B. Brierley; and "Recent Investigation on Potato Blight," by Mr. G. H. Pethybridge. While on Friday the subjects were "New Work on Leaf Curl in Holland," by Mr. H. M. Quanjer. "New Work on Potato Diseases in America," by Mr. W. A. Horton. "New Work on Mosaic in Ireland," by Mr. P. A. Murphy, and "The Situation as Regards Leaf Curl and Mosaic in England," by Mr. A. D. Cotton.

At the opening ceremony, in introducing the Minister of Agriculture, Mr. Martin F. H. Sutton expressed hopes that, large as it now was, Potato cultivation in the future would be much greater, and that in addition to growing the Potato as a food crop, its value in the production of starch and alcohol would be realised. In a forceful speech, Sir Arthur Griffith Boscawen also appealed for increased cultivation and by farmers particularly, in place of much of the permanent pasture that obtains at the present day in England. Cultivation of the Potato would, he said, engage four times the labour entailed by the same acreage of corn, with the prospects of greater profit. Sir Arthur spoke earnestly of the great value of the Potato to smallholders and allotment cultivators, and strongly advised both classes to "study the Potato and give it a better chance of becoming a source of profit." There were many diseases, he went on, to combat, and probably would be more, but the remedy for the insidious Wart disease was to plant only those varieties that the Ministry's trials had proved to be immune. Growers were advised to look out for new varieties and test them with the old in order to obtain improved qualities and increased yields. He believed in the value of conferences and shows. The latter, he contended, fostered the real English sporting spirit of rivalry, and was all to the good. On behalf of the Government, Sir Arthur welcomed the foreign delegates and those from the Dominions, and thanked them for attending and helping in the important work of studying the Potato and improving it in all possible ways.

Mr. W. Lobjoit, in proposing a hearty vote of thanks to Sir Arthur Boscawen, said it was fortunate that there was no union of His Majesty's Ministers, because Sir Arthur was a consistent transgressor against the eight-hour day principle. He was of the opinion that it was very important to consider the cooking qualities of Potatos. The great popularity of the King Edward VII. variety was largely due to the fact "that any fool could cook it easily," whereas many other sorts required great care and attention to cook them satisfactorily.

### The Exhibition.

There were 48 competitive classes, and trade collections were also invited. Altogether these, with various scientific exhibits, well-filled the hall. The general quality was very high, and particularly so in the classes for collections of varying numbers of dishes. In some of the single-dish classes, the quality was not quite so high though, as a rule, the prize-winning dishes were of excellent tubers. There were no classes for cooked tubers. Competition generally was good, but in view of the generous scale of prizes, this was only to be expected. The first prizes for collections ranged from £6 for 12 distinct varieties, to £3 for 3 varieties, and in the single-dish classes, from £3 to £1 5s. In all cases, a dish consisted of 6 tubers.

#### OPEN CLASSES.

The best collection of 12 dishes of any 12 distinct varieties was from Mr. J. M. STEWART, Mollance Gardens, Castle Douglas, N.B., who showed really excellent dishes, though a trifle larger than usually finds favour with judges. His chief varieties were Duke of York, King Edward VII., Exhibition Rose, The Provost and Tinwald Perfection. Mr. G. ANDREWS, Venson Farm, Eastry, Kent, followed the winner very closely. His tubers were smaller, very shapely and had unusually shallow eyes.

Mr. R. GRIGOR, Dalswinton Gardens, Dumfries, was extraordinarily successful in these classes, for he won first prizes in the remaining six classes for collections, and there was great competition in those for six dishes of immune and three of non-immune varieties. In all cases he showed high-class tubers. His very best sorts were Purple Eyes, Prizetaker, Witch Hill, Early Resistant Snowdrop, Bishop, Arran Comrade, Majestic, and both types of King Edward VII. The Rev. C. J. KEAN (gr. Mr. A. Basil), Woburn Park, Weybridge, was a close second in the class for six dishes of non-immune varieties, and in the single dish classes won first prizes for Sir John Llewellyn and Bishop, and with splendid tubers of Mr. Breese in the class for any coloured variety not named in the schedule. Mr. J. M. STEWART had the best dishes of British Queen, Up-to-Date, and King Edward VII. With splendid tubers Mr. F. HOOD, Willesborough, won a first prize for White City.

In the half a dozen classes restricted to allotment holders and amateurs who do not employ assistance the competition was good, but the quality very variable. Mr. W. P. ORRILL, Hinckley, Leicestershire, won both first prizes for collections of three dishes each of immune and non-immune varieties with highly creditable exhibits His dishes of Arran Comrade, Tinwald Perfection, and Bishop were equal to any in the show. Arran Comrade was the most popular white oval or round immune Potato in this section. Majestic occupied the same position as an immune white kidney, and Mr. Breese was shown most in the class for any coloured immune variety.

#### SCIENTIFIC EXHIBITS.

The MINISTRY OF AGRICULTURE filled the annexe with an admirable exhibit. There was a large selection of early, second early, and main crop immune sorts which have passed the tests at Ormskirk, and also a number of varieties susceptible to Wart disease. An uncommon feature was tubers of such old varieties as Schoolmaster, Leathercoat, Silverskin, and Village Blacksmith. The many diseases of the Potato were illustrated by excellent imperishable models made of copper, and these were especially faithful reproductions. The model of the baffling and little understood Mosaic disease was particularly successful. There were also a few tubers of hybrids by M. J. OUMINOT, Villeurane (Rhone), France, and of some American varieties. The latter were mostly round and pebble-shaped, and not at all likely to find favour in this country.

In the body of the hall there were some exhibits of scientific interest, such as "Potato Genetics—New Colours Arising from Re-combination," from Dr. R. N. SALAMAN and Mr. J. W. LESTER (Silver Lindley Medal). The POTATO RESEARCH LABORATORY, Wagenigen, Holland, contributed illustrations of Mosaic Disease and Leaf Curl (Silver Lindley Medal). Mr. D. CUTHBERTSON showed excellent photographs of foliage and tubers of many varieties (Silver Lindley Medal).

From the DEPARTMENT OF AGRICULTURE, Bombay, was exhibited herbarium specimens of Potato plants and of diseases. The varieties grown in Bombay seem to be chiefly of Italian origin. The PLANT BREEDING INSTITUTE, University of Cambridge, had an interesting collection of first and second year seedlings from some of the crosses made there.

The most valuable of these exhibits was that from the IRISH DEPARTMENT OF AGRICULTURE. This consisted of many admirable illustrations of Potato diseases and parasites, with brief, yet concise, explanations of their causes (Silver-gilt Lindley Medal).

The bad effect of lime and chalk on Scab in Potatos was clearly shown on diagrams from the UNIVERSITY OF LEEDS (Silver Lindley Medal), and the SCOTTISH SOCIETY FOR RESEARCH IN PLANT BREEDING sent a number of dishes of varieties raised from crosses made from the late Dr. John Wilson's stocks. Many of these appear to be of considerable commercial value.

*(To be concluded.)*

## Obituary.

**Edwin Molyneux.**—The late Mr. E. Molyneux, V.M.H. (see p. 268), whose death we recorded in the last issue, was gardener and bailiff respectively at Swanmore Park, Bishop's Waltham, since 1878. He had already at that date established a reputation as a clever gardener, and during the years which followed he occupied a foremost position in British horticulture, as well as farming. He was born at Sproxton, near Helmsley, Yorkshire, in 1851, and commenced his gardening career at Stillington Hall Gardens, York. He remained in his first place for seven years and passed through the various departments, gaining a good all-round knowledge of gardening. He spent the next two years at Sutton Hall, near York, which he left to take up an appointment in Messrs. Backhouse's nurseries, but soon afterwards secured employment at Tong Hall, near Leeds. Subsequently he entered the employment of Messrs. F. and A. Dicksons, of Chester, and this firm recommended him as foreman to Major Walter, whose garden was situated near Birkenhead. Mr. Molyneux, while with Major Walter, gained an insight into the growing of plants for exhibitions; Grapes, bulbous plants, and other subjects from these gardens received many awards at the shows of the Royal Botanic Society, Liverpool. His first appointment as head gardener was at Rock Ferry, and while there he won many prizes for fruit, and especially Grapes, at important provincial exhibitions. He remained at Rock Ferry for two years and then moved to Camp Hill, Woolton, Liverpool, where he was engaged by the father of the present Mr. W. H. Myers, and it was from Camp Hill that Mr. Myers brought him to Swanmore Park as his gardener there, in September, 1878. By this time Mr. Molyneux had established a high reputation as a grower and exhibitor of Chrysanthemums, and his name will always be associated with the early exhibiting and improvement of this flower, for his enthusiasm led him to write a valuable little treatise entitled *Chrysanthemums*. While gardener at Swanmore the gardens were remodelled and the glasshouses rebuilt under his directions. Here Mr. Moly-

neux continued the successful cultivation of such subjects as Chrysanthemums, Grapes, vegetables, hardy plants, shrubs, trees and Roses. Even when the whole of the estate, including the farm, passed under his care, he was as interested as ever in horticulture, as his prolific writings on the subject testify, and he was a familiar figure at all the important exhibitions. He was a shrewd man, of kindly disposition, and possessed a fine, commanding presence. Whatever he undertook he did well, and there were few farms better cultivated in the country than the one under his charge; indeed, Swanmore under his management became a model estate.

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To the many who knew the late Mr. Edwin Molyneux, the announcement of his death in your issue of the 19th inst. must have come as a great surprise. Until recently he was, to all intents and purposes, hale and hearty, despite his 70 years of age, yet his death occurred comparatively suddenly. As I stood by the open grave, the last resting place of my old friend, listening sorrowfully to the beautiful funeral service in the churchyard at Swanmore, where he was laid to rest on Tuesday, the 15th inst.—one of the most beautiful of English churchyards, which he had helped to make lovely—I could not fail to notice the large concourse of people gathered together to pay their final tribute to a man who was widely known and universally respected, and thoughts of my old friend and his kindly temperament rushed through my mind back along a period of over 40 years. Swanmore Church was filled with mourners, and many were the floral tributes from various parts.

It seemed strange that he should have passed away at a period of the year when the flower that first brought him to popular and world-wide notice was at its best, for it was in the days when young Mr. Molyneux was beginning to be well known in the South of England as a highly successful exhibitor of Chrysanthemums, that the young gardener, as he then was, and I, first met, and our keen rivalry at the exhibition stand soon ripened into a friendship that has continued for nearly half a century. He was then serving the same employer, W. H. Myers, Esq., of Swanmore House, Hants, as gardener, whom he was with to the day of his decease, and I knew, in a way that perhaps few others did, of the high respect and esteem, nay, even friendship, that existed between the two; Mr. Myers stated to me on the day of the funeral that he had "lost a faithful friend."

Many were the exhibition successes of Mr. Molyneux in those early days; but, later, when he became steward to Mr. Myers, he ceased exhibiting for the more pressing claims of agriculture, and as a farmer he proved himself, by his work and results, second to none. He, however, never really forsook his first profession, and in time became one of the most prominent judges at horticultural exhibitions, and many are the times he and I have judged together at important shows in various parts of the country. He was, indeed, a keen expert in all matters horticultural. In addition, he continued growing his favourite plants as a hobby, and his beautiful gardens at Swanmore Park Farm exhibited to the full his capacity as a gardener, with collections of the choicest Phloxes, Roses, Michaelmas Daisies, and many other flowers.

A man of comparatively few words, but of strong decisions, his quiet geniality of temperament endeared him to all with whom he came into contact, and he was always ready with a helping hand for the men who were fighting their way on. A Yorkshireman, he was a keen lover of cricket, which he followed closely all his life, and many letters have passed between us mainly on this topic. He was a frequent visitor to Aldenham, and I to Swanmore, so that I had many opportunities of appraising my old friend's sterling nature, and "I shall not look upon his like again."

It was only in 1917 that Mr. Molyneux lost his wife, his partner of many years, a loss he felt very keenly with silent grief, and now today the deepest sympathy will go out to their only child, Miss Florence Molyneux, so soon to suffer the grievous double loss of both her parents to whom she has proved such a devoted daughter.

His activities were many, and for years past he has been a member of the Droxford Rural District Council, the Swanmore Parish Council, a School Manager, and People's Warden at Swanmore Church, as well as being the Hon. Sec. of the Swanmore and Bishop's Waltham Horticultural Society, and also a prominent member of various farming organisations, such as the Farmers' Clubs of his district, and the War Agricultural Committee.

Though, during the past few weeks his strength was failing, and speaking became somewhat of a trial, yet he looked forward keenly to the arrival of the *Gard. Chron.*, for he was a keen reader as well as an able writer; he was the author of a famous book on the Chrysanthemum and another on the Vine.

Well, may I say like Marcus Antonius on his friend Cæsar, "He was my friend, faithful and just to me." *Edwin Beckett.*

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It is with great regret that I learn—from your columns—of the decease of Mr. Edwin Molyneux, whom I have known, appreciated, and respected during more than forty years. He was an example of the best type of British gardener, devoted to his employer, and a lover of his work, therefore, successful in his calling and in all that he undertook; straightforward and honourable in all his dealings, generous and helpful to all who sought his counsel, or who required information. Edwin Molyneux first came to the front at the end of the 'seventies and early in the 'eighties as the champion grower of the Chrysanthemum; and by his work and teaching he did much to popularise the flower and to greatly improve its culture. He was also an excellent cultivator of the Grape, as well as of hardy fruits, plants generally, and of vegetables. The ranks of British gardeners are poorer by his loss. *J. Udale.*

**William Bolton.**—Born in Warrington in 1852, Mr. W. Bolton, who died on Friday, November 18, spent the greater part of his life at Warrington, of which town he was an Alderman and "father" of the Town Council. Immediately after leaving school he became a reporter on the staff of the *Guardian*, and for several years afterwards was sub-editor of *The Farmer*. Later, he became associated with a brewing business in Mersey Street, of which he eventually became the proprietor. His municipal career extended over a period of about forty years, and he was at one time Mayor of Bolton, besides occupying many other important positions in the town. To horticulturists, however, he will best be remembered as a collector and cultivator of Orchids, and it is interesting to observe that he commenced his Orchid collection with a few young plants of Dendrobium nobile and of Cypripedium insigne, given him by his uncle, Mr. S. Barlow, of Stakehill, Middleton, who will be remembered as an authority on Auriculas. Mr. Bolton had several interesting and some unhappy experiences as an Orchid collector; on one occasion he lost a large number of his plants owing to the failure of the heating apparatus on one exceptionally cold night and on another occasion he lost a large number of Odontoglossums as a result of over-heating the house in which they were growing. But disappointments served only to increase his interest, and eventually he became the happy possessor of a very fine collection of Orchids, estimated to contain about 100,000 plants at Mill Bank, Wilderspool, a collection ably managed by his gardener, Mr. W. H. Gain, for thirty years. So keen was Mr. Bolton's interest that many years ago he was chiefly responsible for the dispatch of two collectors to South America in search of Cattleyas and Oncidiums. It was Mr. Bolton's custom to send gifts of cut Orchids to members of the Royal family on the occasion of various anniversaries, such as birthdays, and these gifts were invariably acknowledged in an appreciative manner. Mr. Bolton was for many years a member of the Manchester and North of England Orchid Society and of the R.H.S. Orchid Committee. He leaves a widow, two sons and one daughter.

## ANSWERS TO CORRESPONDENTS.

GARDENER'S EJECTMENT AND REFERENCE: *C.R.* (1) Your employer cannot eject you forcibly without an order from this court, and he will have to give you notice of the day and place of his application for this purpose. It will be in the discretion of the court to make an order or not, and, if so, upon what terms; you should be careful to attend and explain the impossibility of obtaining other premises and what efforts you have made in that direction. (2) You cannot insist upon a reference, but, if one is given, it must be an honest one. On applying for a new situation, the only course open to you will be to explain why no reference is forthcoming and to suggest that your proposed employer should write direct to your late employer.

NAMES OF FRUIT: *A. N. S.* M.1. Blenheim Pippin; M.2. White Westling; M.3. Reinette de Caux; P.4. Radford Beauty; D.6. Mela Carla.—*S. T.* 1, Bedfordshire Foundling; 2, Blenheim Pippin; 3, Sturmer Pippin.—*C. C.* Pear decayed, probably Beurré Bosc.—*B. B.* 1, Lady Henniker; 2, Harvey's Wiltshire Defiance; 3, White Melrose; 4, Flanders Pippin; 5, Summer Strawberry; 6, Catshead; 7, Claygate Pearmain; 8, Lord Lennox.—*G. S. B. H.* 1, not recognised (local); 2, Pitmaston Pine Apple; 3, Hanwell Souring; 4, Blenheim Pippin; 5, Winter Quoining; 6, Reinette de Caux; 7, Sam Young.—*W. C. B.* 1, Cox's Pomona; 2, Cellini; Pear Beurré Diel.—*D. P. D.* 1, Stone's Apple; 2 and 3, Warner's King; 4, Potts's Seedling; 5, King of the Pippins; 6, not recognised; 7, Lord Derby; 8, Small's Admirable; 9, Herefordshire Beefing; 10, Golden Noble; 11, Golden Reinette; 12, Court of Wick; 13, Yellow Ingestre; 14, Peasgood's Nonesuch.—*G. B.* 1, 2 and 4, decayed; 3, Brockworth Park; 5, Beauty of Kent; 6, Striped Beefing; 7, Barnack Beauty; 8, Rymer; 9, Northern Greening.—*W. T.* 1, White Nonpareil; 2, Fearn's Pippin; 3, Roi d'Angleterre; 4, King of the Pippins; 5, Cornish Aromatic; 6, Herefordshire Pearmain; 7, Mabbot's Pearmain; 8, King of the Pippins; 9, Blenheim Pippin; 10, Ribston Pippin; 11, Radford Beauty; 12, not recognised; 13, same as 1; 14, Brownlees Russet.—*W. L.* 1, Charles Ross; 2, Grenadier; 3, Ringer; 4, King of Tomkins County; 5, Sturmer Pippin; 6, Reinette du Canada; 7, Claygate Pearmain; 8, Uvedale's St. Germain; 9, Josephine de Malines; 10, Beurré Gris; 11, Fondante du Panisel; 12, Vineuse; 13, Maréchal de Cour.—*B. V. T. N.* 1, Domino; 2, Franklin's Golden Pippin; 3, Old Nonpareil.—*W. P. B.* 1, Ribston Pippin; 2, Wyken Pippin; 3 and 4, Scarlet Nonpareil; 5, Melon Apple; 6, White Nonpareil; 7, Cockle Pippin; 8, White Styre.—*H. E.* Colonel Vaughan.

NAMES OF PLANTS: *Conrad.* A form of Lobelia cardinalis.—*S. H. H.* Mackaya Bella.—*W. B. S.* Datura Stramonium.—*W. H. J.* Specimens appear to be: 1, Bougainvillaea glabra; 2, Santolina pinnata, but were very shrivelled when received.—*W. G.* 1, Pentstemon barbatus; 2, Helenium autumnale var. cupreum; 3, Physostegia virginiana; 4, Anaphalis margaritacea; 5, Helenium autumnale; 6, Clematis recta.—*W. T.* Blue flower, Buddleia volubilis; white, Anthericum variegatum; the broad Fern is Cyrtomium falcatum, and the longer one a plumose form of Nephrolepis.—*F. K.* 1, Daphne Laureola; 2, Eleagnus pungens aureo-variegata; 3, Eriobotrya japonica (Loquat); 4, a very poor specimen, possibly the common Woodruff.—*A. M. S.* 1, Lonicera Caprifolium; 2, too withered for determination; 3, not recognised.—*A. P.* 1, Salvia splendens violacea; 2, Asclepia curassavica; 3, Asplenium sp.; 4, Polypodium vulgare cambricum; 5, Davillia ternifolia; 6, Hemionitis palmata.—*G. K. P.* Eupatorium cannabinum, so far as can be determined without flowers.

**Communications Received.**—W. T. D.—A. H.—A. C. W.—G. R. S.—H. W.—R. V. & S.—Salop—F. T. D.—F. B.—E. E.—C. D. & S.—W. H. J.—D. B. W.

**MOLLATT** Thomas Finney of Brook House Farm Butterton **Staffordshire** died 29 September 1921 Administration **London** 8 May to William Mollatt farmer.
Effects £2149 3s. 9d.

**MOLLER** Charles Otto of 10 Gilston-road Brompton **Middlesex** died 13 April 1879 at Komgha near Cape Town South Africa Administration **London** 6 January to Leonard Wallich Moller shipbroker.
Effects £409 11s. 9d.

**MOLLER-GARCIA** Fransisca Eulalia. See **GARCIA** for **MOLLER.**

**MOLLER** Jessie Jane of 46 Knights-road Silvertown **Essex** (wife of William Moller) died 5 January 1921 Probate **London** 23 November to William Robert Moller oil refiner.
Effects £252 9s. 2d.

**MOLLETT** Arthur Robert of 34 Stow Park-avenue Newport **Monmouthshire** died 22 November 1922 Probate **Llandaff** 18 December to Fanny Frech (wife of Sigismund Alfred Frech). Effects £405 19s. 10d.

**MOLLISON** William of 34 Crown-street Port Talbot **Glamorganshire** died 11 February 1922 Probate **London** 22 March to Catherine Elizabeth Mollison widow.
Effects £420.

**MÖLLMANN** Herbert Bernard of Woodsome Lodge Weybridge **Surrey** captain H.M. Army died 1 February 1917 in France Administration **London** 23 August to Clara Mauritia Merrick (wife of Thomas Henry Merrick). Effects £1350. Former Grant P.R. May 1917.

**MOLLOY** Charles Patrick of Arkonam **Southern India** died 9 January 1922 at Kobe Lodge Nursing Home Madras India Administration **London** 27 October to Nora Gertrude Vickers (wife of Harold Claud Adrian Vickers).
Effects £645 6s. 4d.

**MOLLOY** Edward of 36 Mackenzie-street **Liverpool** died 13 December 1920 Administration **Liverpool** 24 January to Michael Thomas Molloy manager.
Effects £1767 10s. 4d.

**MOLLOY** Hugh of 62 South Hill-park Hampstead **Middlesex** died 27 March 1922 Probate **London** 18 November to Elizabeth Molloy widow. Effects £2427 12s. 9d.

**MOLLOY** James of Analore-street Clones county **Monaghan** died 30 October 1921 Administration **Dublin** to Thomas Molloy farmer. Effects £49 17s. 6d. in England.
Sealed **London** 2 February.

**MOLLOY** John Thomas of 24 Jeddo-street Newport **Monmouthshire** died 27 March 1922 Probate **Llandaff** 8 May to Arthur James Stevens mechanical engineer.
Effects £261 7s. 5d.

**MOLLOY** Mary of Rosbercon county **Kilkenny** widow died 5 November 1921 Probate **Dublin** to Margaret Mary Kehoe married woman. Effects £939 3s. 6d. in England.
Sealed **London** 25 February.

**MOLLOY** Peter of 19 Elsdon-road Gosforth **Northumberland** died 31 December 1917 at the Central Police Buildings Newcastle-upon-Tyne Administration **Newcastle-upon-Tyne** 27 March to Isabella Molloy widow.
Effects £93 1s. 6d.

**MOLLOY** William of 13 Balfour-road **Derby** died 27 April 1922 Administration **London** 27 November to the Treasury Solicitor. Effects £145 0s. 1d.

**MOLLOY** William Thomas of 10 Kirkstall-street Ardwick **Manchester** wood packing case maker died 11 January 1922 Administration (with Will) **Manchester** 28 March to Annie Molloy widow. Effects £393 13s. 4d.

**MOLONEY** Joseph Retallack of The Bungalow Mersham near Ashford **Kent** died 28 June 1922 at Gill House Willesborough Kent Administration **London** 26 July to Bertram Retallack Moloney poor law officer.
Effects £881 4s. 8d.

**MOLONY** Betsy otherwise Elizabeth of 77 Waterloo-road Freemantle **Southampton** widow died 13 January 1922 Administration (with Will) **London** 18 May to Henry Francis Molony miner. Effects £279 2s. 4d.

**MOLONY** Frank Richard of 4 Old Wrexham-road **Chester** retired telegraphic overseer died 25 April 1922 Probate **Chester** 5 July to Ann Burrows spinster.
Effects £748 4s.

**MOLONY** Kate O'Sullivan of 10 De Vere-mansions 34 De Vere-gardens Kensington **Middlesex** widow died 30 August 1922 Probate **London** 21 September to Lucita Purcell spinster and Bee Charlton (wife of William Henry Charlton). Effects £15543 14s. 1d.

**MOLTENI** Luigi of 4 Alpha-place Radnor-street Hockley **Birmingham** died 29 May 1922 Administration **London** 9 November to John Ernest Molteni dairy manager.
Effects £1634 18s. 2d. Resworn £1779 15s. 3d.

**MOLYNEUX** Albert of 48 King-street Ardwick **Manchester** postman died 6 April 1922 at the Royal Infirmary Chorlton-on-Medlock Manchester Probate **Manchester** 29 April to Phœbe Molyneux widow. Effects £768 4s. 6d.

**MOLYNEUX** Annie of 42 Kyverdale-road Stoke Newington **Middlesex** (wife of Edward James Molyneux) died 7 November 1921 Administration **London** 10 February to the said Edward James Molyneux pawnbroker.
Effects £389 9s. 4d.

**MOLYNEUX** Arthur of Inglewood Cefn Coed Roth Park **Cardiff** died 2 July 1922 Probate **London** 28 September to Arthur Hedley Molyneux stationer and Sydney Richard Hamilton Molyneux commercial traveller.
Effects £205 9s. 4d.

**MOLYNEUX** Catherine of 53 Bolton House-road Bickershaw **Lancashire** (wife of James Molyneux) died 15 January 1922 Administration **London** 27 February to the said James Molyneux fitter. Effects £43 15s.

**MOLYNEUX** Edward of 52 Longmoor-lane **Liverpool** retired hay and corn merchant died 12 September 1922 Probate **Liverpool** 25 October to Ellen Molyneux widow and Walter Molyneux and Frederick Molyneux hay and corn merchants. Effects £8942 1s.

**MOLYNEUX** Edward Charles of The Vicarage Portesham **Dorsetshire** died 5 April 1922 at 271 The Vale Acton Middlesex Administration **London** 7 October to John Howard Molyneux barrister-at-law.
Effects £1344 3s. 8d.

**MOLYNEUX** Edwin of Swanmore Park Farm Bishops Waltham **Hampshire** estate agent died 12 November 1921 Probate **Winchester** 12 January to Florence Matthews Molyneux spinster. Effects £1952 17s. 11d.

**MOLYNEUX** Elizabeth of 79 Station-road Northwich **Cheshire** widow died 30 August 1921 Probate **London** 29 November to Frederick Griffiths Molyneux fitter. Effects £50.

**MOLYNEUX** Emma of 14 South-street Dorking **Surrey** widow died 15 November 1922 Probate **London** 7 December to George Martin law stationer. Effects £190 12s. 5d.

**MOLYNEUX** Harry Bellis of 27 Clive-street Tunstall **Staffordshire** died 21 February 1922 Administration **Lichfield** 16 May to May Helen Molyneux widow.
Effects £546 19s. 5d.

# THE GARDENS OF COLONEL JOHN BIDDULPH, AT GREY COURT, HAM

A BLAZE of glorious colours greeted my eyes as I entered the conservatory at Grey Court, Ham, on a lovely April afternoon, and I congratulated Colonel Biddulph's gardener, Mr. Edward Montague, who was showing me round the gardens, on the brilliant effect of the extremely fine group of the new Pelargonium Clorinda, arranged in pots, tier above tier.

"They have been in flower," he said, "for six weeks, and will continue to throw up blooms for a month longer. I grew them from cuttings put in during September, 1910. There were about twenty cuttings, and I thought that as standards they would make a good show. You will notice that in another corner there are a few standards of similar habit, but light pink in colour, with a deep purple blotch. The foliage is a little darker, and it flowers a little later than Clorinda, from which it is probably a sport. I am fond of making experiments in standards, and the masses of flowers in this case are encouraging."

"The conservatory, I see, is also a Vinery?"

"With one Vine of great age. It is quite seventy or eighty years old. Some people say it is a Black Hamburgh, but I think it is a Barbarossa. There are twenty-six rods, and last year three hundred and fifty bunches of Grapes were picked. The fruit is black in colour, sweet, and luscious; the bunches weigh from one pound to one and a half. The house is forty feet long, and fifteen wide. With regard to the fruiting season, we do not force, but we generally begin to gather the last week in August, and go on until the second week in November. We often have to cut and bottle, which carries on the season for one variety to December. Thinning them takes up a good deal of time. The Vine is planted outside, and the roots extend under the lawn. When the Grapes begin to swell, I feed it in the gullies in the gravel path."

"There are several varieties of Geraniums on the walls?"

"Yes, they are Robert Hayes, pink; Swanley Double White, Lady Chesterfield, Henry Jacoby, Raspail Improved, and Paul Crampel, red. The Tree Carnations were struck last February, and include about a dozen varieties in all. They are grown in a frame for a certain time, and then brought in here. Primulas have been flowering since early in December, including Sutton's hybrids and The Czar, a blue variety. For the individual flower I prefer Cineraria sinensis, but stellata for decorative purposes. There are a few Azaleas, notably Duchess Paul; a few Amaryllis grown from seed; a group of Schizanthus coming on; and Draccenas, Grevilleas, and Pteris Ferns in pots. The conservatory always has plenty of green to tone down the more brilliant colours."

## Standard Roses.

Stepping outside this tastefully arranged and decorated building, we proceeded to the front of the house. In a border facing it, Scottish and Norwegian Brier Roses are a feature, and Mr. Montague said,

"I do not prune the Norwegian Roses, but only take out the dead wood. The flowers are deep yellow. On the other hand, we severely prune the Quinces in the border, treating them like Apples. Colonel Biddulph likes the bloom, which is not quite so decided a pink as Apple blossom. There is nothing here further to note, except the Yew hedge right round the entrance. Later on, we have tubs of Agapanthus, and Paul Crampel Geraniums standing outside. The creepers on the house include Ivy, Jasminum pubescens and revolutum, Lonicera etrusca, and Ampelopsis Veitchii."

"Is there any scheme of colour in the Rose garden facing the conservatory?"

"No; except one piece, which is all pink. The feature is the arrangement of standards, of which there are twenty-eight beds, with white Daisies as groundwork. In summer they will be succeeded by Violas Maggie Mott and Mollie Pope. This is a very bleak aspect, and all the Roses are Hybrid Perpetuals. The pink corner

MR. EDWARD MONTAGUE.

is limited to Mrs. John Laing, Mrs. Sharman Crawford, and Mrs. George Dickson. At the side, with a background of Lilac, are moss, polyantha, and rugosa Roses, with Crimson Ramblers as pillars."

"But you have more Roses in the border on the right of the lawn."

"They were only put in last September, taking the place of herbaceous plants. The new Roses, on their own roots, are chiefly Gruss an Teplitz, Frau Karl Druschki, Magna Charta pegged down with climbers behind, Mrs. Flight, Carmine Pillar, Longworth Rambler, Leuchstern, and Blush Rambler. In the corner are Foxgloves, coming up as single stems, and harmonising with the Roses. York and Lancaster are also included in the collection, which is edged with Pink Mrs. Sinkins. At the near end of the path there is an archway consisting of Honeysuckle."

## A Plane Two Hundred Years Old.

"The glory of the lawn is, of course, the most magnificent specimen of Oriental Plane. Can you tell me the dimensions?"

"It is eighteen feet round the trunk three feet from the ground. The height is about seventy-five feet; the branches extend forty-eight yards, and the ground they cover is quite a hundred yards round. One authority from Kew estimates the age of the tree at two hundred years. In contrast to this tall monster, are some graceful Japanese Maples on the lawn."

"How do you fill the pretty border in front of the windows of the house during summer?"

"The groundwork will be mauve Ageratums, scarlet Geraniums, and Heliotropes Mrs. Roberts, dotted with standard scarlet Fuchsias, grown from cuttings four years ago, and clumps of Nicotiana affinis, edged by Geraniums Little Trot. Now, it is full of Wallflowers and Myosotis."

Beyond the lawn and its fine old Acacias and Chestnut trees, with numerous Roses on poles, were many bright spring flowers in the grass. Daffodils and Tulips—Yellow Prince, a splendid variety for the purpose—Scillas, and Jonquils. Outside the green and the golden Privet hedges, I caught sight in the meadow of a group of Portuguese Pines, and asked where they came from.

"The seeds were brought home by Colonel Biddulph from Pines growing on the slopes of Busaco, in Portugal, where Wellington won a big battle, fighting against the French in 1810. The variety is P. pinaster.

"In the extension of the gardens," continued Mr. Montague, "which embraces a woodland walk, are borders of flowering shrubs, including Choisya ternata, Daphne mezereum, Veronica repens, Diervilla florida and rosea, Lavender, and Rosemary, also grown for fragrance. The soil, which is light sandy, suits many of the varieties. We planted, in a warm corner, a bed with Rhododendrons last autumn, including such varieties as Frederick Waterer, Kettledrum, Guide, Sefton, rosea, elegans, Mrs. Waterer, and Mr. R. Holford."

"Do you give prominence in the herbaceous border to any varieties?"

"No; we simply choose what we think the prettier flowers, including Campanulas, Tritomas, Centaureas, Delphiniums, Aconitums, Pyrethrums, Geums, and Oriental Poppies: and in the bare spaces we use Stocks and Asters. For a break behind, fruit trees are used, such as Siberian Nuts, Apples, Pears, Medlars, and Quinces. Guelder Roses also help us, and there are clumps of Norwegian grass—Elyuccas glauca—which gets the bluer the more water we give it."

## An Outside Fernery.

Recrossing the lawn, Mr. Montague called my attention to a recent addition to the gardens.

"Twelve months ago we made a little Fernery on one side of the walk leading from the Rose garden into the principal fruit garden. The Ferns were planted in leaf-soil and peat on the stumps of old trees, with English Irises at the bottom. The varieties of Ferns are chiefly Athyrium cristata and grandiceps; Lastrea dilalutum and grandiceps; Osmunda gracilis and regalis; Polystichum frondosum and setosum; and Pteris aquilina. On the opposite side of the walk are Pæonies and Foxgloves, with Evening Primroses as dot plants, and Crimson Rambler Roses on the poles. The Pæonies do well."

"The fruit garden is largely devoted to Apples?"

"Yes; but by no means exclusively. For example, there are four beds of Lilies of the Valley, which were made two years ago, and are showing up well. I keep adding leaf-soil and light manure, which helps them. In the border under the Chestnut trees the space is chiefly occupied by Periwinkles, Iris, and Ivies. The Roses on the arches are Hiawatha and Philadelphia Rambler. With regard to Apples, there are nearly two hundred trees. Colonel Biddulph is very keen on them, and they are mostly, as you see, young trees. In Apple culture it is most important to keep the trees clean. In the gardens they are all pyramid and cordon trained. The only variety

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grown as cordons on the wall is Cox's Orange Pippin, from which we get some very nice fruit. The fence at the end of the garden is planted with espalier trained trees of James Grieve and Allington Pippin. Last autumn we also planted more pyramids of Newton Wonder and the two varieties already mentioned. The plantation at the bottom of the garden consists chiefly of Golden Reinette and King of the Pippins. In the orchard they are all standard trees. There is one Apple which is not grown nearly so much as it ought to be. I mean Betty Geeson, a good cropper and a late keeper. The standard Pear trees are Uvedale's St. Germain, Verulam, and Vicar of Winkfield, which we use at Christmas for dessert. We get large crops every year from the aged Mulberry tree, and in the cage, bush fruit does very well indeed. The Gooseberries are White Lion and Lancashire Lad; the Black Currant, Boskoop Giant."

**The Fruit Walls.**

Leaving the orchard, with a number of handsome Black Minorca fowls evidently enjoying themselves under the Apple trees, we made our way to the other fruit garden. Here are the Pears on the walls, the varieties being principally Marie Louise, Winter Nelis, Easter Beurre, Fondante d'Automne, Durondeau, Williams's Bon Chretien, Pitmaston Duchess, and Le Lectier. A considerable portion of the wall is occupied by Plums, Pears, and Peaches. Red Currants are also grown on the wall.

"Under the walls I notice you grow both Strawberries and vegetables?"

"The Strawberries consist of Royal Sovereign, Mentmore, Givon's Late Prolific, and a row of Leader. This being a south border, we generally begin to pick Strawberries about the 9th of June. We plant new beds every other year."

"You seem to go in for a great many Potatoes?"

"Yes, we grow a great many Potatoes. We had quite a ton last year, which is not bad considering the amount of ground we are able to devote to them. But, you see, we are taking in a part of the meadow for Potatoes, so that we can avoid planting the Winter Greens between them. For early work, we use Sutton's May Queen and Sharpe's Express. We do not grow any in frames, as our room is limited in that direction. In this nice, warm border, we commence digging the first week in June. You will notice that we have rows of Peas, at intervals of twelve feet apart, sown in February, so that we are able to stick them before planting the Potatoes. We get four rows of Potatoes in each space between the Peas, and by the time the Potatoes are showing through the ground, the Peas are well up the sticks, and provide a good protection against late frost, from which we usually suffer down here in the valley. For second-early, we plant Ninetyfold, Duke of York, and Dublin Favourite; for maincrop, The Factor, Up-to-Date, Dalmeny Beauty, and White City."

"Which do you consider vital points in Potato cultivation?"

"One is change of seed. We obtained last year some seed direct from Scotland, and this year we are trying some Irish seed. As you can perceive, it is breaking nicely. I like to start Potatoes into growth before planting by laying them in trays or shallow boxes, and keeping them exposed to the light. It is then easy to pick out the best and most vigorous. I find also that the weight of the crop is considerably increased. The weakest of the shoots are removed, leaving only two or three of the strongest. This is best done with a small knife, not rubbed off, or they will grow out again. I never plant with a dibber, but make a few trenches, laying the seeds carefully along, and covering them lightly with a mixture of old potting soil, decayed leaves, and wood ashes, previous to covering with the garden soil. I generally plant the early varieties, two feet four inches between the rows, and one foot in the rows. The main crop I plant two feet six inches between, and eighteen inches in the rows. We dig a quantity each year, about the third week in June, when they are quite new, place in air-tight boxes, and bury them in the garden. We find them most acceptable about Christmas-time, as they come out still retaining the flavour of new Potatoes."

"And the varieties of Peas?"

"Sutton's Harbinger, Early Giant, and King Edward VII., followed by Centenary,

GREY COURT, HAM.

Saccharine Marrowfat, and Gladstone. We find that for Peas, cotton is a better protector than wire. There are three Asparagus beds, each forty feet long, and we commence cutting the first week in April. Salad is grown in quantities, particularly Lettuces, Endive, and Chicory; and the favourite Carrot is Early Gem. We follow Violets in the frame with Improved Telegraph Cucumbers."

**Treatment of Coleus.**

"You have quite a representative show of varieties of Coleus in beautiful shades of colour."

"I find them most useful for conservatory work and for grouping. In the absence of a stove house, and of Crotons, they admirably supply a deficiency. There are about a score of varieties."

"I should like to have a few details of treatment?"

"Cuttings are struck in small pots rather thickly in September to winter. We strike from these again early in February for the first supply. We then propagate from time to time to keep up a supply of smaller plants. I grow some right on without stopping them, as they are serviceable for the background, and as dot plants in groups. Although Coleuses are easily propagated, they require very careful attention to secure nice, healthy, well-coloured specimens. They are very thirsty plants. If over-watered, they quickly lose their foliage, and especially so after having been potted. When potting, I generally use a compost of loam, leaf-soil, a little decayed manure such as comes from an old Mushroom bed, and some silver sand, and I prefer to pot a plant on several times, rather than give too big a shift at once. When they have well filled their final pots with roots, I feed them with some weak soot-water and artificial manure, alternately, to help them in their colouring. I took a group to Kingston show last year, and gained first prize against five exhibits. I also put up two honorary groups last year."

"What else do you manage in this house?"

"Eucharis Lilies are a feature. The species is E. grandiflora, generally called E. amazonica. The bulbs were brought home by Mrs. Biddulph in March, 1903. For the last five years they have been grown in a temperature of fifty-five degrees during the night, rising during the day from five to ten degrees, according to the amount of sunshine. They have not been disturbed at the root more than was necessary in attending to the drainage, and have been given an occasional top-dressing, with a compost of loam, a little leaf-soil, and silver sand. One plant has thrown up six good spikes, each with five blooms, and we generally get two crops of flowers from them, one at Easter, and another late in the year. In this house we also grow Tomatoes, Sutton's Winter Beauty and Duke of York. On the shelves is a batch of Strawberries Royal Sovereign, with fruit just commencing to colour."

"The second house appears to be devoted largely to Nectarines?"

"It is a Nectarine house, and the varieties planted out in the border are Cardinal and Lord Napier. There is one Peach, Waterloo, but Nectarines do better than Peaches."

"You have not mentioned Chrysanthemums or Sweet Peas?"

"For early purposes we grow nine varieties of Sweet Peas. Twelve other varieties are grown for planting in clumps outside."

"How many Chrysanthemums do you grow?"

"About one hundred and fifty for autumn work, mostly Singles, because they are so useful for decorating. Some of them are disbudded, and others are grown in sprays. Miss Jessie Dean, Miss Annie Holden, and Mary Richardson are very pretty and useful when they are not disbudded. Roupell Park Beauty (plum colour), and Eureka (white), give some very fine flowers for vase work when disbudded. We also grow Edith Pagram, Bronze Pagram, Eleanor Mary Borde, Mrs. W. Buckingham, Miss Annie Garnier, and Mrs. T. C. Knight. A few Japanese, chiefly yellows, are grown, such as Golden Gate, Mrs. H. Emmerton, and Mrs. W. Knox. We generally have from ten to twelve blooms on a plant, as our glass is not very extensive. I also have a batch of W. H. Lincoln for late work."

**Mr. Montague's Experiences.**

"Have you done much in exhibiting?"

"Since I came here five years ago, I have taken over forty prizes for Apples, collections and single dishes of vegetables, groups of plants, and table decoration. I was second for six dishes of dessert Apples at the Crystal Palace in open competition; and I have been first for Apples, and third for Potatoes at the

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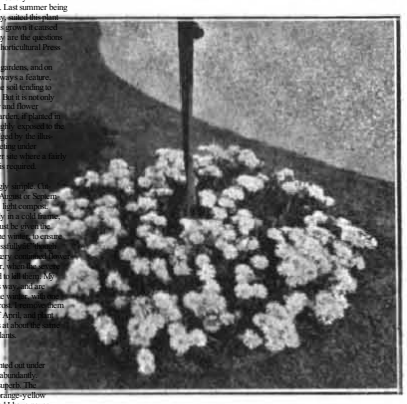
Horticultural Hall. In the class for Potatoes, there were twenty-one exhibits. I have also carried off honours at Richmond, Kingston, Wimbledon, Twickenham, and Surbiton. I keep all my show cards, and prize them very much."

"Where did you begin your gardening career?"

"At Beech Lodge, Watford. My next appointment was in the gardens at Hazelwood, King's Langley; and for upwards of eight years I was under Mr. Charles Brown, a very succesful exhibitor of vegetables and Chrysanthemums, at



MESEMBRYANTHEMUM PURPUREUM AT BASE OF STANDARD ROSE.

Abbey House, Abbott's Langley. Then I went as gardener at Colnhurst, Watford, to Ham in 1907. Both Colonel and Mrs. Biddulph are very fond of their garden, and they give me every encouragement in my work."

ALFRED WILCOX.

Next week the gardens at Albury Hall, Hadham, Hertfordshire, will be described.

## MESEMBRYANTHEMUM PURPUREUM.

MESEMBRYANTHEMUM purpureum is one of the prettiest subjects that can be used as a bedding plant, and for making a good show on the rockery during the summer months. Last summer being exceptionally dry and sunny, suited this plant admirably. Wherever it was grown it caused many comments, and many are the questions that have been asked in the horticultural Press concerning it.

In the Bournemouth public gardens, and on the sea front, this plant is always a feature, the light, sandy nature of the soil tending to make it flower very freely. But it is not only a seaside plant. It will grow and flower freely in practically any garden, if planted in a position where it is thoroughly exposed to the sun and air. As may be judged by the illustration, it is capital for carpeting under standard Roses, or any other site where a fairly close dwarf-growing plant is required.

### How to Raise Plants.

The cultivation is exceedingly simple. Cuttings may be put in during August or September, in boxes, using a fairly light compost. They will strike quite readily in a cold frame, or even out of doors, but must be given the shelter of a frame during the winter, to ensure their coming through successfully—though some plants I had on a rockery continued flowering up to February this year, when the severe frosts we had just managed to kill them. My own plants are struck in this way, and are kept in the cold frame all the winter, with one mat over them in case of frost. I remove them to the open air at the end of April, and plant them direct from the boxes at about the same time as the other bedding plants.

THOMAS STEVENSON.

## ROSES UNDER GLASS.

ROSES in pots, and those planted out under glass, have been blooming abundantly. Lady Hillingdon has been superb. The long, thin, deep yellow or orange-yellow buds are most attractive, and I have never seen it so good as it has been this season.

Madame Segond Weber is another fine pot Rose. It has long, salmony-pink buds, borne on long stems. I do not remember having heard of this variety being especially recommended for growing under glass, but I am sure it is quite one of the best for that purpose, either as a pot Rose or for planting out.

Molly Sharman Crawford is also good for pots for rather later blooming. It has so many petals that it does not open well in winter or very early spring, but it is a fine, large bloom when well out, and almost pure white. It has long, fairly stiff stems, but not strong enough to hold the flowers up when cut their full length.

### Liquid Manures.

Liquid manure should be given at every watering, but it should be very diluted. Nitrogenous manures, such as nitrate of soda, nitrate of lime, and sulphate of ammonia, should not be given after the colour of the petals can be seen in the bud, because they cause the blooms to open too rapidly. Weak soot-water does not seem to have the same effect if not used more than twice a week.

Deer or sheep droppings make one of the best most amateurs cannot get deer or sheep-manure; and as fowl manure is next best for Roses, one gallon of it should be put to fifteen gallons of clear water, and be allowed to stand two days before using.

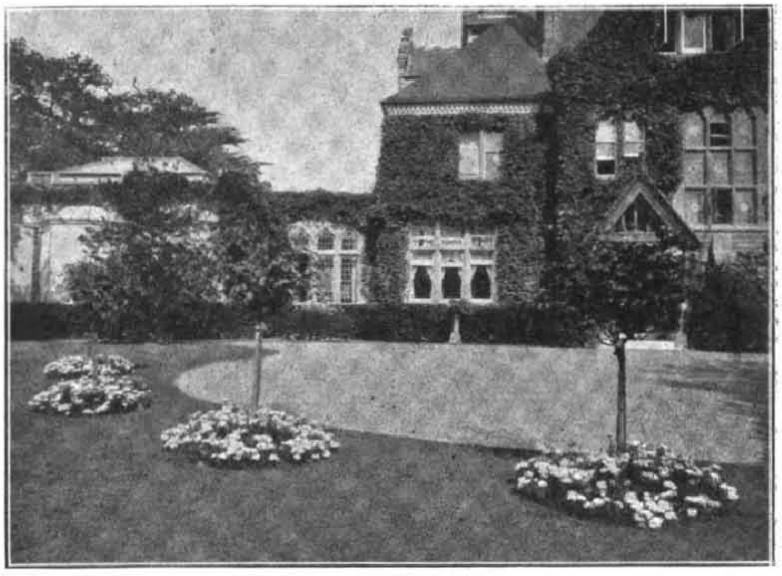
The manures should be stirred up three or four times the day after being put into the water, but not on the day they are used; and only the clear liquid should be used at any time. When the blooms are not wanted for cutting, but it is desired to leave them on the plants for room decoration, or for the conservatory or greenhouse, they should always be thoroughly shaded as they open, a garden mat being suitable for the purpose; otherwise they will soon be poor and faded. They will last some days in bloom when taken into a front hall, or other room where there is little or no fire or gas.

### Best Roses for Indoor Culture.

The Hybrid Perpetuals are the best to make a display for the conservatory, or as pot plants in the house. The blooms generally open altogether on the same plant, which rarely happens with Teas or Hybrid Teas. They are also larger, have brighter colours, and are sweeter scented. They include such varieties as W. J. Laing (pink), Magna Charta (pink), Helen Keller (pink), Heinrich Schultheis (pink), Hugh Dickson (crimson), General Jacqueminot (crimson), Captain Hayward (crimson), and Paul Neron (pink)—I had almost forgotten to mention this fine old variety, which is quite one of the best, very large and sweet scented.

As the H.P.'s are not continuous bloomers, it is usual to put them outside in a sheltered position as soon as the flowers are over; but the Teas and Hybrid Teas are generally kept inside, because they commence to produce more flower buds before the other blooms are over.

Those who want to increase their stock for another year, or make a commencement, should obtain plants in pots at the present time from a reliable Rose grower or nurseryman; because



MESEMBRYANTHEMUM PURPUREUM IN LAWN BEDS.

liquid manures—one gallon of the droppings put into ten gallons of water, and allowed to stand two days before using. Pot Roses may be watered with this each time they require moisture at this stage of growth. I like to give one watering a week with clear lime water, one pound of lime put into five gallons of water, and this can be used the following day.

Nearly everyone can get fowl manure, but better plants may be obtained by growing them on through the summer, than if procured in the autumn.

ROSEUM.

"CHRYSANTHEMUMS for Exhibitors and Amateurs," by R. Barnes, is a practical work on the subject. Price 1s. 3d., post free, from Hatton House, Great Queen Street, London, W.C.

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# Miscellaneous.

*The late Mr. Duncan Montgomery.*—This well-known gardener died at Buchanan House on the 15th ult. He was 79 years of age, 56 of which were spent in the service of the late and present Dukes of Montrose. He was a most successful grower of Grapes and Peaches. Vines planted by him 54 years ago are reported to be still in the best possible condition, and during that long period never to have failed in producing heavy crops. Many of their stems measure 14 inches in circumference. They have never been cut back since they were planted; but through being pruned on the "close spur system" the spurs are stated to be quite close to the stem, and by no means so unsightly as we usually find them on old Vines. Mr. Montgomery was born in the parish of Comrie in Perthshire, where he commenced his horticultural career. He afterwards went to the Botanic Garden, Cambridge, under the late Mr. Donn, who belonged originally to the same parish; from Cambridge he went to Kew, and from thence to Buchanan House. The Council of the Horticultural Society of London conferred on him the honour of "Corresponding Member" of that Society in April, 1825.

in cultivation, and I expressed some wonderment as to the facts on which these figures were based. In regard to the cultivation of the Vine, a correspondent writes, "This is almost the easiest question to answer. Noah began it—the first of any gardening, and, also, of any planting whatever." So that settles it. Adam has often been called the first gardener, but my correspondent summarily deposes him. He would, however, add to our knowledge if he were to state exactly the years in which Noah lived. I suppose, too, that Noah did not make his Vine, so it must have been in existence before. Will my correspondent kindly say how long? He goes on, "Why a hundred and fifty years for the Fig? Are not the archbishops three hundred years?" I give it up. The question seems to be one which should more properly be addressed to the Puzzle King, who has been helping limerickers to make their fortunes. "And only one hundred for the Vine!" Here I agree that this may be an under-estimate, though the age of the Hampton Court Vine is no more to the point than is the age of Methuselah in connection with the age of an ordinary man. However, I thought I stated quite clearly the figures were not mine. I doubted, and still doubt, whether we have sufficient knowledge to base them on.

### Rapid Growth After Frost.

March 12th.—The rapidity of the growth made by Alpine plants after the frost has gone has often been the subject of comment. No doubt, to this habit they owe their very existence. For if they could not develop rapidly during the short period of growth allowed to them in their native land, they must long ago have disappeared. But the habit is not, I think, confined to them, though they have it in a pronounced degree. Many other kinds of plants seem to grow with surprising rapidity after frost. To mention only one instance, I have, in an unheated conservatory, three or four dozen Maidenhair Ferns, and, as the thermometer there registered five or six degrees of frost on several nights during the winter, they were frozen hard in their pots more than once. Instead of their being killed, as I expected, they all started strongly into growth quite three weeks before their usual time. Two or three years ago, a well-known French horticulturist, writing about the rapid flowering of Lilac and other shrubs after etherisation, suggested that this was due to the withdrawal of moisture by the ether, and that frost might act in the same way. If so, its action in promoting the growth of Ferns is curious, though the fronds do ultimately carry the spores.

### Wooden Labels.

March 13th.—Useful as wooden labels are, they can rarely be depended on for more than a single season, the end in the damp soil decaying so that a very little pressure is enough to break it off. A simple method of increasing their term of usefulness is to soak them first in a solution of sulphate of iron, and afterwards in strong lime-water. By this means, the insoluble sulphate of lime is deposited in the pores of the wood, which is thus protected from the action of moisture.

### Comet Asters.

March 14th.—It is a curious thing that specialisation should divide not only different races in the same country from one another, but also different countries. Why, for example, should the cultivation of Asters for seed be left almost entirely to Germany? There, they are grown by the acre, and certainly with wonderful success, for the improvement which has been effected in them of late years has been extraordinary. There is no comparison between the large flowers of the Comet Asters of the present day, more like Japanese Chrysanthemums, with the puny flowers of a past generation.

H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 276.—MR. M. MOODY, AT SOUTH LODGE GARDENS, HORSHAM.

THERE are several features of special interest in the lovely gardens at South Lodge, Mr. F. D. Godman's handsome country seat, a few miles from Horsham, in the centre of typical Sussex scenery. When I paid a visit to them, early in January, Mr. Moody suggested that I should first of all inspect the glasshouses, which are in close proximity to his house and the entrance. The collection of Orchids, which is in charge of Mr. G. Giles, a skilful Orchid-grower, occupied my attention for some time. In the first house I saw a fine lot of Calanthes Veitchii, just past flowering, and which had given a grand display. In a partition in the same house were varieties of Phalænopsis, Schilleriana, Stuartiana, amabilis, Sanderiana, Rimestadiana, etc.; also Cypripedium Maudiæ, Callosum Sanderæ, Fascinator, Madame Jules Hye, and other choice varieties. In the Cattleya house itself, several Lælias were in flower, including L.-C. Lydia, Charlesworthii, and Sunray. Other choice things noted were Cattleya Mossiæ, Wagenerii, Gaskelliana alba, labiata Mrs. F. D. Godman, and L.-C. Dominiana.

"The intermediate house largely contains Cypripediums," I observed.

THE MISSES GODMAN AMONG THE DAFFODILS, AT SOUTH LODGE, HORSHAM.

"The insigne now in flower are the Hartfield Hall variety, Dorothy, Ernestii, Wallisii, and Standard, Leeanum giganteum, L. magnificum, L. Keeting variety, and L. compactus, Clinkaberryanum, Nogi, Prospero, Harrisianum superbum, and niteus. Then there are several pots of Onicidium Cheirophorum (a golden flower), a batch of Sophronitis, and some good specimens of Maxillaria grandiflora, which received an award of merit in 1907."

"Are there any others which have received an award of merit?"

"Lycastes Ballæ (South Lodge variety)."

"Do you go in largely for Odontoglossums?"

"As you see, we have a house devoted to them. O. Crispums are in flower, notably O. Crispum Harryanum, and O. C. Rolfeii."

"Do you cut the flowers?"

"Not until we have had the pleasure of looking at them on the plants for a little time. But Odontoglossums are useful for decorating, and will last a fortnight in water. One house is practically devoted to the growing of Lælia anceps, the Albino variety being well represented."

"How many Calanthes do you grow?"

"About two hundred. The varieties include William Murray and Bryon. In pots, resting, at the back of this house, are a number of Dendrobium Phalænopsis."

"You have a house entirely devoted to Dendrobiums?"

"Yes, and the varieties include splendidissimum, grandiflora, Leechianum, Juno, nobile in variety, including D. n. Amesæ and D. n. virginalis (two or three plants), with D. Apollo, Artemus, and Wardianum, which are all showing for flower. Also in this house are two dozen Thunias, which flower during June."

"Altogether, your collection seems a most interesting one."

**The Carnations.**

"Perhaps you would like to take the Carnations next. We have two houses of Malmaisons."

"Which do you consider the best varieties?"

"Old Blush, Lord Rosebery, Princess of Wales, and Princess May. A house is also devoted to Tree Carnations, of which Enchantress is the best. Other very good Trees are Flamingo, Cardinal, Lady Bountiful, Mrs. H. Burnett, Britannia, Lieutenant Peary, Lady Audrey Neild, Harlowarden, and Mrs. T. W. Lawson. We have about five hundred Trees, and the same number of Malmaisons, and get a succession of Carnations. There are a few hybrids between Trees and Malmaisons, such as H. J. Jones, King Arthur, Leander, President McKinley, and Cecilia."

**The Rhododendron House.**

"Have you any specialities in the stove?"

"It is chiefly filled with Dracænas and Crotons in variety. At the back is a very fine Hibiscus, from which we cut flowers all through the summer. At the bottom of the fruit garden is the Rhododendron house (a hundred feet long and twenty-five wide), which also contains a number of Camellias."

"And Fuchsias?"

"Yes, it is a capital house for Fuchsias trained on the rafters. By the autumn many of these will be three or four feet long, and full of flower. The varieties are Rose of Castile Improved (a giant tree, which a tall man can stand under and look up into), Mrs. J. Rundle, Aurora superba, Lord Beaconsfield, Phenomenal, and marginata. They represent almost every shade of colour, and go on flowering from June until Christmas. We feed them well, and the seed-pods are pulled off every week."

"What is the variety of that gigantic tree of Rhododendron now in flower?"

"Argenteum var. grande. It is an old species, introduced by Dr. Hooker, creamy-white, with a blush blotch at the base. This variety grows in the Himalayas at an altitude of seven thousand feet above sea-level, which makes it nearly hardy with us."

"What is the height of the very tall tree?"

"From fifteen to eighteen feet, and it is nearly as much through. Another variety is Aucklandii hybrida, a cross between Aucklandii and Fortunei. The flower opens a most beautiful pink, and dies away into a white. On some of the argenteum we get a hundred and fifty flowers at once. Then, there is R. Nathaliæ, the most distinct variety, with trumpet-shaped flowers, eight or nine inches long. It comes out a bright canary-yellow, and changes to white as it advances. R. Maddeni does not flower until midsummer; it is very sweet-scented, and the purest white. In addition, we grow ten or twelve varieties in pots, including Lady Alice Fitzwilliam, fragrantissimus, Edgworthi, Countess of Haddington, MacNabiana, Dalhousei, etc.

**Remarkable Camellias.**

"With regard to Camellias," continued Mr. Moody, "the fine, large plants in this house are the double white (alba plena) and large red (Mathotiana), but we have many of the other varieties outside. Thus, in front of the mansion, C. Donckelarii usually gives us two thousand flowers, beautifully mottled, every year, and this after pecks of buds have been gathered to thin them out. While we are speaking of the mansion, a Mandevillea suaveolens also flowers well on it; it is pure white, and sweet-scented. Other climbers are Roses and Bignonias, and in the conservatory adjoining the mansion is a nice plant of Tecoma Smithii (a bright yellow flower, nearly allied to the Bignonia), and fine specimens of Camellia reticulata. Of course, the contents of the conservatory change according to the season. Just now they include Primulas, Poinsettias, Euphorbia jacquiniæflora, Chrysanthemums, and Begonias."

**Chilian Pillar Plant.**

"What are the names of the pillar plants in the Rhododendron house?"

SOUTH LODGE, LOWER BEEDING, HORSHAM.

"They are specimens of a Chilian shrub, called Cantua dependens. It flowers on the top of the branches, and cannot be grown in hot and dry houses. The colour of the flower is carmine, shading to purple, and it is the shape of a bell. Clianthus puniceus also covers a great many feet of space on the rafters, branching each way several feet—loaded with flowers in March and April."

"You also have a number of Rhododendrons outside?"

"They consist of many of the best garden hybrids, including also several Sikkim varieties, such as Thompsonii, Campylocarpum, Blandfordiæflorum, cinnabarinum, Roylei, Fortunei, Hodgsoni, niveum, glaucum, and Falconeri. Besides these, we have other beautiful varieties of Luscombe hybrids, and also of Aucklandi and Fortunei. While we are speaking of Rhododendrons, I may mention that the collection of Azaleas is also very extensive. It consists of ledifolia, Mollis, Ghent (species and varieties), occidentalis, and a great many pleasing varieties of the famous Knapp Hill seedlings."

"To what do you attribute your success in the cultivation of Azaleas?"

"To the natural soil being particularly suitable (owing to the absence of lime, and the plentiful supply of iron), the prompt picking off of seed-pods when the flowering season is over, and the fact that we top-dress with leaf-soil and lawn-mowings."

**Nerines and their Cultivation.**

"Where do you grow your Nerines?"

"They are now resting at the back of one of the fruit houses, which we shall see presently. Nerines, as you probably know, are not very generally grown, but we have made a feature of them."

"Yes, I remember that you brought out a new variety, called F. D. Godman, which received an award of merit from the Royal Horticultural Society."

"The flowers of F. D. Godman, called, of course, after the owner of South Lodge, are salmon-rose, and very beautiful. They last, like most Nerines, about three weeks in flower. But the cultivation of this interesting plant is no new thing to me. I have been growing the old species for over twenty years. The new varieties are seedlings sent out by Mr. Henry Elwes, of Colesborne. The old species are Fothergilli major, and its variety corusca. The seedlings raised by Mr. Elwes flower well into November, and prolong the season considerably. They also give us all sorts of colours, and are a very decided addition to the old species."

"How many Nerines do you grow?"

"About a thousand, chiefly of the old species, and also rosea, Bowdeni, etc. The cultivation is very simple. Water should be given with much discretion, when it is wanted, and not otherwise. The watering should be continued until the foliage is faded, when the plants should have a good rest for plumping up their bulbs, and they require repotting every three years. Being Cape plants, they only want greenhouse or frame culture. They start flowering at the end of August, and their usefulness for house decoration may be judged by the fact that they travel to Scotland without injury, and last quite a fortnight after cutting. Like most South African bulbs, the foliage follows the flowers."

"Do you grow any other South African plants?"

"Between four and five hundred Hippeastrums. They are chiefly seedlings. The treatment is similar to Nerines; they should be watered with great judgment, and given plenty of rest. When they are in flower, they make a brilliant show in the conservatories."

"Are there any other plants in houses which we have omitted to include?"

"There are about three hundred Cyclamen, which have been in flower since October, and Begonias (Winter Cheer and Gloire de Lorraine) are grown in quantity. But I think you have a very fair idea of the contents of the houses, except the fruit range."

"What Peaches do you go in for?"

"Royal George, Barrington, Crimson Galande, Royal Kensington, Goshawk, Hale's Early, and Nectarines Lord Napier, Elruge, Pitmaston Orange, and Violette Hative. The Peach crops are very satisfactory. There are three Vineries, the early house containing Black Hamburgh and Madresfield Court, and the late Black Alicante, while the other house consists almost entirely of Muscats. All the ranges of houses and the mansion itself have the same system of heating, and most of the houses were erected by Messrs. Boulton and Paul."

"Flowering shrubs, I notice, are a great feature?"

"We have an extensive collection of both deciduous and evergreen, such as Eucryphias, Grevilleas, Podocarpus, Crinodendrum, Colletias, Hamamelis, Abelias, Calycanthus, Oreodaphne, Kolreuteria, Carpentaria, Kalmias, Enkianthus, Xanthoceros, Stuartia (pseudo-Camellia), Stylax, Chimonanthus virginica, Thermopsis nepalensis, Cornus in sorts, and Clerodendrons. Another feature of the garden now in process of completion is an archway of Rhododendrons eighty years old, known as the 'Dark Alley,' which covered a pathway, and spread fifty or sixty feet each way. It has been opened up and replanted with hybrid Rhododendrons, Azaleas, and other shrubs. This leads down to a series of lakes, through beds of Heather in many varieties. The border on the opposite side is four hundred feet long, and is filled with all sorts of flowering shrubs. On the lakes are a considerable and very interesting collection of water fowl, including Chinese, Canadian, Brent, Barheaded, Barnacle, and Egyptian geese, besides a numerous collection of ducks, including wood-duck and the very beautiful Mandarins from China."

"What is the length of your herbaceous borders?"

"Two hundred and fifty yards, and the width varies from ten to forty feet. The system adopted is to plant in masses, and I suppose that all the leading varieties are represented. They include Acanthus, Anthericums, Delphiniums, Pæonies, Phlox in variety, Ostrowskia, Helianthus, Asters in variety, Macrotamias, Hemerocallis, Monardas, Montbretias, Kniphofias (in great variety), and Statices. Another important feature is the rock garden, which we are now approaching. It was remade ten or eleven years ago, and includes a beautiful gorge; also, by way of contrast, a swamp, in which Iris, Spiræa, and Liliums in variety flourish."

### Features of the Rock Garden.

"I notice you have some fine specimens of Yuccas."

"Yes, the Yuccas form a representative collection, the chief varieties being Y. gloriosa, recurva, and filamentosa. The small ponds in the rock garden contain some of the best varieties of Marliaceæ Lilies, and one very striking group of bushes is composed of Skimmias (japonica), many of which are several feet in diameter, with rich foliage, and heavily laden with scarlet fruit. As to other varieties, they include Androsaces in variety, Asperulas, Campanulas, Cypripediums (notably spectabile), Dianthus, Edraianthus serpyllifolius, Gaultheria nummularioides, Gentiana acaulis and verna, Bletia hyacinthina (or the Chinese Orchid), Gnaphaliums, Haberleas, Lithospermums in variety, Meconopsis in variety, Philesia buxifolia, Primulas in many varieties, Ramondias (blue and white), Sanguinaria canadensis, Saxifrages in eighty varieties, and Soldanellas, which you see are still in flower, though, of course, the rock garden is at its best in April, May, and June. Below this garden are the Rose beds, and a wild garden. Roses are grown to the extent of about two thousand, including the most popular novelties. In the wild garden there are a great many thousand Daffodils; in fact, bulbs are a very great feature. I suppose we put in nearly seven hundred bushels of all kinds, Dutch, South African, Chilian, and Mexican. In one bed alone, forty bushels of the Narcissus Emperor were dug last autumn for replanting."

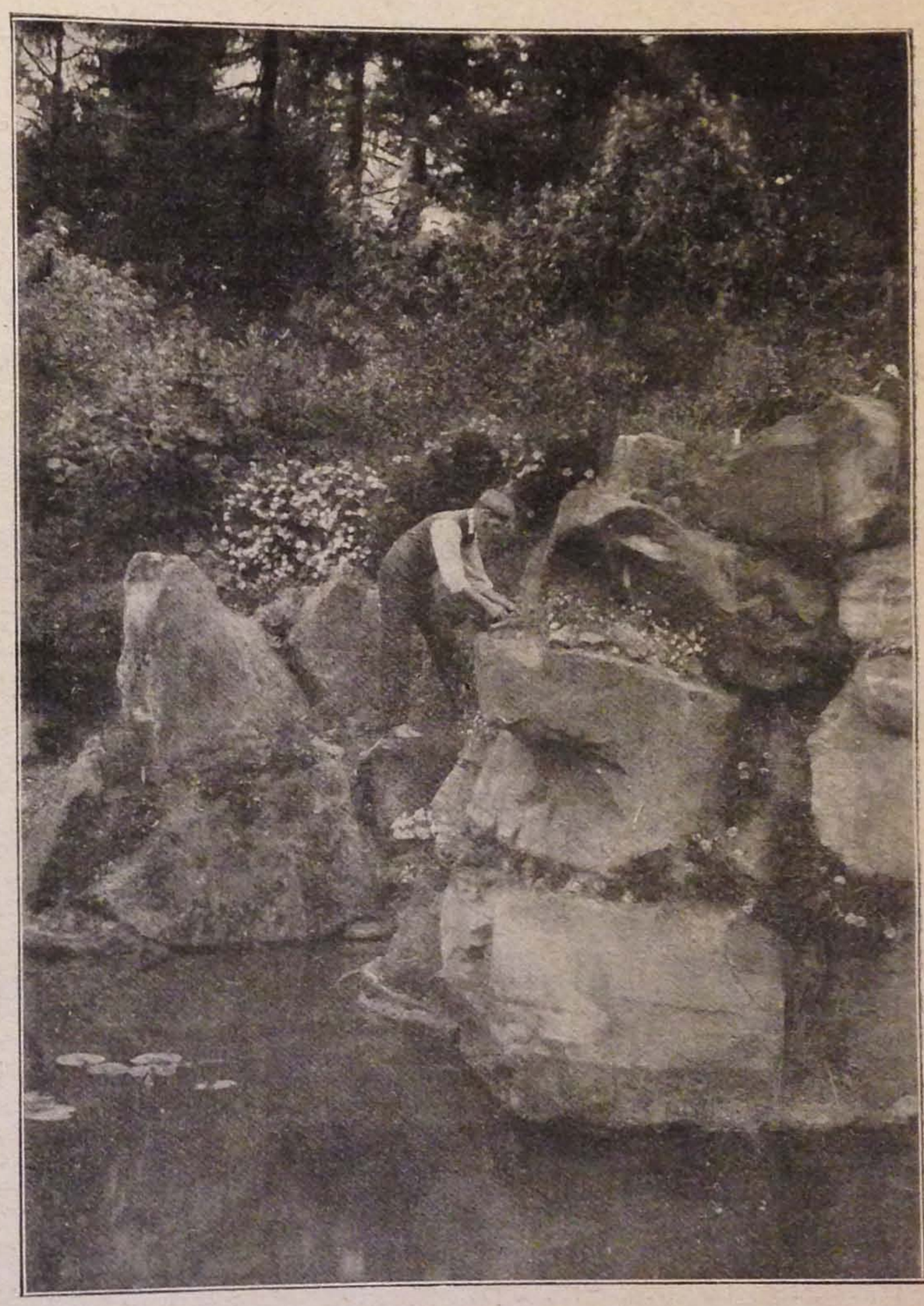
"What about Crinums?"

"These bulbs occupy a bed in the garden about twelve feet square. They are hardy with us, and give a great quantity of flower in the autumn months. With regard to autumn flowers, several varieties of Belladonna Lilies from South Africa are grown along a border in front of the fruit house, where also the Barberton Daisies (Gerbera Jamesoni) make a splendid growth, with quantities of flowers. In that warm border there is also Libertia formosa, a little iridescent plant, with thick clusters of white flowers; and there, likewise, the Jacobean Lily (Sprekelia formosissimus) flourishes."

"Do you care to say anything about outside fruit or vegetables?"

"We grow a very large quantity of most of the varieties of hardy fruit, and, I think, of all the best-known vegetables. But we consider the rock garden (which is a veritable home for Alpines), the herbaceous plants, and the Orchid houses our strongest points. I should like to add that Mr. and Mrs. Godman take a very keen interest in their garden, and I have every encouragement from them."

"How long have you been at South Lodge, Mr. Moody?"



IN THE ROCK GARDENS AT SOUTH LODGE, HORSHAM.

"I shall have been here thirty years the second week in March, and that is all I have to say about myself. I have a staff of about a score, and provision is made in the bothy for four of the young unmarried men."

ALFRED WILCOX.

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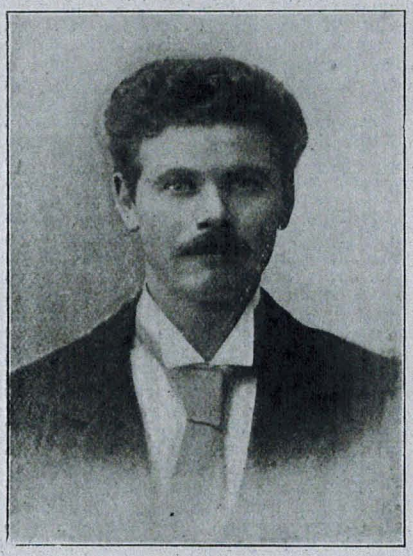
THE Abutilons are at the present time a sadly-neglected race of plants. They are undershrubs, attaining a considerable size if allowed to do so, and bearing their large, bell-shaped blossoms, of various colours, in abundance. Tne large palmate foliage is exceedingly handsome, and the plants make a splendid bed in the open air in summer, either by themselves, or grouped with Fuchsias, Cannas, or Begonias, etc.

Mr Moore



# THE FEATURES OF FRENSHAM PLACE GARDENS, FARNHAM.

At the annual show of the National Chrysanthemum Society in November, the cup was won by Mr. Cyrus Moore, gardener at Frensham Place, near Farnham, and within a short distance of the historic castle, which is occupied by the Bishop of Winchester. At present, Mrs. George Clarke is the tenant of Frensham Place, but the fine modern mansion was erected, and the grounds were laid out, by Mr. C. Arthur Pearson, to whom the property belongs. Mr. Moore has held his present position for nine years, and many of its features were suggested, as well as carried out, by him under the direction of the owner. Visiting the gardens while the Chrysanthemums



MR. C. MOORE.

were still making a brilliant show in the houses, I asked Mr. Moore to point out the principal features. Things at Frensham Place are done on a big scale, from the pleasure grounds down to the cultivation of Violets and early vegetables.

### The Flower Gardens.

"How large are the pleasure grounds?" I asked, as we proceeded to the south front of the house.

"They are about nine acres in extent. The terrace, you will notice, is gravel, with a balustrade, supported by a retaining wall, which surrounds it, and the herbaceous borders beneath, with Alpine plants in the pockets of the wall, which is also embellished with climbing plants and Roses."

"And the flower garden below?"

"The idea is to get masses of one colour. In summer we plant two thousand Geranium Paul Crampel, and, in spring, many thousands of Myosotis. In the old flower garden beyond, we use Salvia Glory of Zurich alone, and this furnishes a blaze of scarlet."

"What varieties do you rely upon in the stone panel walk, running parallel with the herbaceous border?".

"The Alpines are chiefly those of a creeping habit, such as Thymus serpyllum alba and splendens; Silene acaulis, Sempervivums, Sedums, and Saxifrages in variety; Menthas and Linarias. One of the borders is filled entirely with Iris germanica varieties of the best sorts."

"The length of the herbaceous borders must tax your resources?"

"The border on one side is over fifty yards long, and on the other quite a hundred yards. But we have no difficulty in filling them. Delphiniums of sorts are largely used. The Rev. E. Lascelles is a variety which is much admired, and makes grand back-row plants. Others suitable for the same position are Spiræa aruncus, Solidago Golden Rod, Phloxes (in rows), herbaceous and shrubby Lupins, Anchusa italica Dropmore variety, and Opal. In one of the borders are Alyssums, Aubrietias, Aquilegias, Astilbe Queen Alexandra, Spiræa palmata, Campanulas in variety, Chrysanthemums The Speaker and maximum, Erigeron, and Funkia."

### A Summer-house in a Tree.

"The house is admirably clothed with Ivy and Virginia Creeper."

"Yes, and from the windows inside there is a fine uninterrupted view of charming country. But the best view of the country can be obtained from the summer-house which Mr. Pearson erected on a tree."

"I was about to make an enquiry respecting that summer-house, which is the most remarkable I have ever seen."

"It is reached by means of a spiral staircase, and can seat sixteen people to meals, which have often been served there in the summer.

"On the north side of the house," continued Mr. Moore, as we resumed our progress, "is the old Rose garden, surrounded, as you see, by a pergola of Dorothy Perkins. The garden is dotted with weeping standards of the best sorts, and in the beds beneath, dwarf Roses are planted."

"You appear to be especially rich in Roses and Rhododendrons?"

"The Rhododendron garden, which we are now entering, was only planted two years ago. On our peat and sandy soil, both Rhododendrons and Azaleas do exceedingly well. There are big specimen plants of Pink Pearl, Kate Waterer, Michael Waterer, Lady Helen Cathcart, and Delicatissima; and one or two isolated specimens over a century old, which have been replanted here. In the season, the adjacent herbaceous Pæony border, a hundred yards long, is a mass of flower, and Phlox succeeds."

### The Wild Rose Garden.

Passing through four large tennis-courts, and a croquet-court of considerable size, all in splendid condition, we reached the most striking feature of all—the wild Rose garden and pergola.

"When was this lovely place made?" I asked.

"It was made and planted two years ago. The pergola is two hundred yards long, and runs through the whole of the garden. As to the plan of the garden itself, it is formed in huge beds. Existing trees have been kept standing for the Rambler Roses to cover one in each bed, and grass walks run through the whole. There is an absolute absence of formality, and yet every care has been taken to render the garden as beautiful as possible."

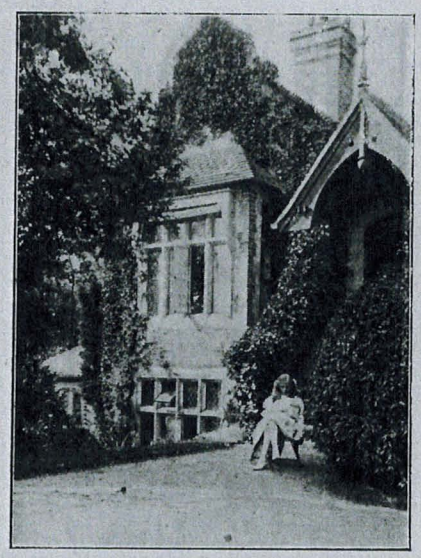
"There must be many varieties of Ramblers?"

"Close upon a hundred Ramblers, Briers, and rugosas. The favourites include R. Carolina, virginicum flore pleno, Gymnocarpa, Reine Andre, Luise de Nymph, Edmond Proust, Ayrshire, and Tea Rambler, Mrs. Anthony Waterer, Eliza Robichon, Rubens, Garland, Ellen Berkeley, Jersey Beauty, Una, Tausendschon, Psyche, Noisettiana, macrophylla, rubrifolia, moschata, White Dorothy, American Pillar, refulgens. and Hiawatha."

"What about shrubs?"

"The best evergreen and deciduous varieties include Andromeda formosa, a bed of Kalmia latifolia, Pernettyas, Acris, Almonds, Amelanchiers, Azara microphylla, Berberis, Buddleias, Caryopteris, Cerasus, Choisya, Cistus, Cytisus, Deutzias, Exochordas, Forsythias, Viburnums, Halesia, Leycesteria, Magnolias, Malus, Muehlenbeckia, Olearias, Spiræas, Weigelas, Ceanothus, and Wistarias."

From the pleasure grounds, which in summer must afford enjoyment to every lover of the beautiful in Nature and in art, we went past the indoor tennis-court—made after the French



THE GARDENER'S HOUSE.

style of brick and brick dust, with a racquet-court in the same building—pausing a few minutes to inspect the Rose houses, which were originally devoted to the electrical installation. Here, though the Roses were only planted eighteen months ago, varieties like Climbing Frau Karl Druschki, Fortune's Yellow, Niphetos, Marechal Niel, and Madame Jules Gravereaux have developed in the most amazing manner. Arriving at the kitchen garden, to which is attached a fruit garden, the whole being five acres in extent, Mr. Moore suggested that we should first inspect the houses.

### The Chrysanthemums.

So we started with the Chrysanthemums, the Bush, Single, and Decorative varieties.

"One of the very best of these," said Mr. Moore, "is Mrs. W. Buckingham, and Mensa is a grand white. Kitty Bourne (yellow), Pink Quintus, Cannell's Yellow, Tokio (bright red), Bronze Pagram, Tayke Bird (lemon-yellow), with Edith Pagram, Sylvia Slack, and Gracie Tower are also among the favourites."

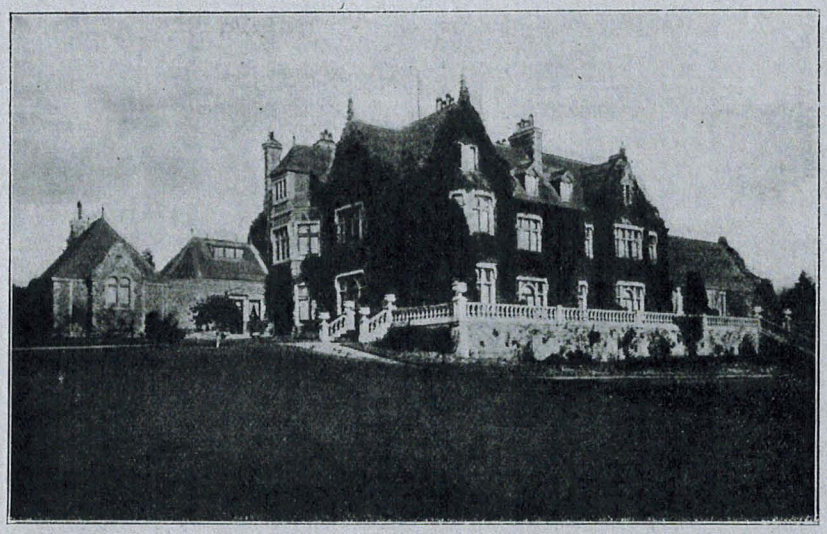
"They form a brilliant collection, distributed in two houses, the only difficulty being to deter-

mine which are the more attractive blooms. How many Japanese plants do you flower?"

"Five hundred and fifty. Of these, the thirty-six best varieties are Alice Lemon, Bessie Godfrey, Captain Mitford, Countess of Granard, D. B. Crane, Duchess of Sutherland, Evangeline, Francis Joliffe, F. S. Vallis, F. W. Lever, G. F. Richardson, George Hemmings, H. E. Converse, J. Locke, Kara Dow, Lady F. Rider, Lady Talbot, Marie Loomes, Mary Farnworth, Master David, Master James, Madame P. Radaelli, Miss A. Nicholls, Mr. H. Thornton, Mrs. A. T. Miller, Mrs. C. H. Totty, Mrs. F. C. Stoop, Mrs. G. Drabble, Mrs. R. Luxford, Pockett's Crimson, Reg Vallis, Hon. Mrs. Lopes, W. Jinks, White Queen, Margaret Smith and W. Mease."

"Then there are the seedlings, which look very promising?"

"One is a good white, with a touch of pink; another a big purple flower; a third a good crimson; a fourth a beauty like Mary Farnworth, but a trifle lighter in colour. There is also a fine yellow sport from Menza. The object in growing these seedlings has been to obtain varied shades of colour."



THE TERRACE, FRENSHAM PLACE.

**Hints on Cultivation.**

"A few hints from you on cultivation would be very valuable."

"Old stools should be kept as near the glass and as cool as possible, with plenty of air at all times to ensure a sturdy, hard growth. Cuttings should be struck in a cool frame close to the glass, either in a spent hotbed, or in a frame fixed inside a greenhouse. I put my cuttings into a frame prepared with sifted loam and leaf-soil. Pots I do not use, but I give the cuttings a good watering, and keep them close until they are rooted, with a little air to prevent damping."

"What about the shifts and soil?"

"I pot into 3-in. pots when ready, and again into 6-in. pots, and then into their finals, using various sizes, according to varieties. That is to say, the weaker-growing sorts go into smaller pots, and others into larger, 8-in., 9-in., and 10-in. pots being used. The soil is chiefly composed of good, fibrous loam, leaf-soil, wood ashes, soot, and sand, but no manure. After the plants are established, I feed them with various liquid manures, finishing them off with guano when they are housed."

"You have also a great collection of Carnations, both Tree and Malmaison."

"Yes, Carnations are a very big feature. We have two batches of from four hundred to five hundred Trees, and the season lasts right through the year. We get the best flowers when the sun is breaking through. The principal varieties are Fair Maid, Enchantress, Rose-pink Enchantress, May Day, Mrs. Fortescue, White Perfection, Lady Bountiful, Mrs. Lawson, Harry Fenn, Kaffir Chief, Carola, Britannia, Sarah Hill, and Marmion. Of Malmaisons, we grow chiefly Princess of Wales, the old Blush White, Maggie Hodgson, Cecilia, and Hermione. The two last are not true Malmaisons. We cut Malmaisons all the year round, except August and September, but we get most satisfaction out of Trees."

"I will get you again to give me a few notes on cultivation."

**Essentials in Treatment.**

"At all times cool treatment should be given to Malmaisons; forty degrees night temperature, to fifty-five by day with sun heat, is ample, except, of course, during summer, when this would be impossible. When propagation is taking place, a temperature of fifty-five degrees is suitable, and this also applies to the Tree section, which I propagate exactly in the same way. The Malmaisons grown in this manner I use for winter flowering, the spring and summer-flowering plants being grown from layers. A good loam, fibrous, with leaf-soil, and old mortar rubble or brick-dust, makes a useful compost. Attention to drainage is essential. During favourable weather, the Tree section should be well syringed, but I never syringe Malmaisons. Syringing is one of the causes of the dreaded disease, but a well-wetted bottom on which the plants can stand will keep red-spider in check. Plenty of air should be admitted on all favourable occasions, and great care should be exercised in watering. These are most important essentials in the cultivation of Carnations."

FRENSHAM PLACE.

"Do you go in largely for Sweet Peas?"

"Yes, and especially for early cutting. We sow three seeds in a 3-in. pot in October, pot off at the end of January, and, weather permitting, plant out in the first week of April. We generally begin to cut the first or second week in June. The varieties used for early cuttings are Anglian Blue, Clara Curtis, Etta Dyke, Helen Lewis, Maud Holmes, Miriam Beaver, Mrs. A. Ireland, Mrs. H. Sykes, Mrs. Hugh Dickson, Nubian, Money-maker, Frank Dolby, Apple Blossom Spencer, Tennant Spencer, and Constance Oliver."

Pursuing our course through the houses, my attention was attracted by a fine collection of Begonias in the Melon house.

"These," said Mr. Moore, "will be three feet each way in February. The varieties are Gloire de Lorraine and Turnford Hall, flowered in 9-in. and 10-in. pots. Out of one of these houses, we get three crops of Melons, and two out of the other. We start with Sutton's Superlative, which is quite the favourite, and then proceed with Emerald Gem. I rely upon these two varieties for my crops. Melons are grown on the single-stem system, sixty plants in a house, and we get two or three fruits on a plant, sometimes four. In the next house are bulbs of Amaryllis."

"You appear to have an enormous number packed away under the stage."

"About two thousand. In the flowering season last year, which is April, May, and June, they filled the house and overflowed. Though the bulbs are packed up as thick as thieves, they are quite happy. They are all seedlings from the best varieties, which I crossed two years ago. A good percentage of my seedlings have flowered, including a pure white of excellent form, and some brilliant crimsons."

**Toy Trees.**

"Do you go in much for Orchids?"

"The principal are Lælia anceps, a few good Cattleyas, and Cypripediums; but in the Orchid house are a number of Bamboos, and several very good specimen Ferns. The latter include Marshalli and Fisheri. We flower a few standards of the Geranium Clorinda, and baskets of it. By way of contrast to some of the various flowers which we grow in such quantities, you may like to know the collection of toy trees."

"I suppose they are of Japanese origin?"

"Yes, they are Japanese pigmies, one of them one hundred and twenty years old. Several date back a century, and others ninety and seventy years. The varieties include Acers, double Cherries, and Telcoas. If you came in the Schizanthus season, I could show you some beautiful blooms, for they are quite another of our features, and we depend largely upon them."

"You have now some very delightful blooms of Arum Lilies."

"Yes, I am very pleased with the Godfrey Arum; it is not only the earliest flower, but it is the best for wreath making, and is very free in flowering. I have been cutting from the first week in October."

"Have you any flowers you grow largely out of doors?"

"In the frame ground we have twenty lights of Violets, which we pick twice a week all through the winter. There are two frames of Marie Louise, but all the rest are Princess of Wales. I am a strong believer in planting Violets out early, and get mine in the ground usually by Good Friday. You may care to mention here that we force two hundred Lilacs, two hundred Azaleas, and one hundred Rhododendrons, besides Wistarias and Spiræas, all of which are now, in December, in pots out of doors. A very great feature, as you can judge for yourself, is Dorothy Perklns grown in pots. We have grown this Rose for years in this manner, and we have one hundred and twenty in pots. I always strike them in the spring."

"What do you consider your principal fruit under glass?"

"Grapes are rather a feature. We always get a specially good crop in our late Vinery, in which we grow Alicante and Melton Constable. The former are good in colour and appearance. Peaches and Figs are also grown. Our best Tomatoes are Lister's Prolific and Carters' Sunrise, but we also grow Ailsa Craig, a most excellent variety of Tomato."

**The Pear Pergola.**

"I hope its fame will be as great as that of its namesake amongst Onions. But now you must tell me a little about your fruit outside. Of course, the Pear pergola is the most striking feature."

"There are twenty varieties on the pergola, all cordons, of which the leading are Clapp's Favourite, Williams's Bon Chretien, Triomphe de Vienne, Marguerite Marrillat, Louise Bonne of Jersey, Pitmaston Duchess, Emile d'Heyst, Doyenne du Comice, Knight's Monarch, Beurre Hardy, Josephine de Malines, Olivier de Serres, Le Lectier, and President Barabe."

"And your Apples?"

"We have had the best crop this year that I ever remember of Cox's Orange Pippins, which are grown as trained espaliers. Other good varieties are Gladstone, Worcester Pearmain, James Grieve, American Mother, Peasgood's Nonsuch, Allington Pippin, Sturmer Pippin, Blenheim Orange, Warner's King, Lane's Prince Albert, Bramley's Seedling, and Bismarck."

"I see you grow Cherries as cordons?"

"I commenced three years ago, and I am very satisfied with the results. The birds cannot get them, and they fruit better. The varieties are Noble, May Duke, and Black Tartarian. The varieties of Strawberries are Kentish, Royal Sovereign, Givon's Late Prolific, Latest of All, Bedfordshire Champion, Laxton's Latest, and Viscountess (for jam). I leave my Strawberry runners in for three years, treating them in much the same way as I treat Asparagus."

"You have a large area devoted to Asparagus."

"Nearly a quarter of an acre. We only grow one variety, Giant White. I always get a little fresh ground every three years for Asparagus, and Strawberries need to have new beds worked in every season. With regard to other vegetables, large quantities of all the usual kinds are grown; but this also applies to fruit, flowers, shrubs, and everything else. I have only thought it worth while to touch on the leading characteristics."

**Mr. Moore's Career and Showing.**

"I should be glad to have some particulars of your own career, and of your showing experiences?"

"I have been nine years with Mr. Pearson here, and my first place as head gardener was with the Right Hon. Colonel Cooper, Markee Castle, Collooney, County Sligo. From Ireland I came to Frensham Place. I was previously at Trentham, Stoke-on-Trent, the seat of the Duke of Sutherland, then in all its glory; and at Tring Park, the seat of Lord Rothschild. With respect to showing, you have seen some of my Show Chrysanthemums, though they do not look nearly so well now as they did at the Crystal Palace; and, of course, my greatest success was the capture of the National cup the other day for the best forty-eight blooms of Japanese Chrysanthemums. I have won a good many prizes locally, and at Winchester this year I was first for twenty-four blooms in eighteen varieties, first for a dozen varieties, and second for three blooms of six varieties."

As I examined, in Mr. Moore's pretty house, the trophy secured at the National show, he mentioned that he is a teacher in botany, and takes the keenest interest in the scientific side of gardening.

"I am quite sure," he added, "that the upward tendency in the standard of training for gardeners will continue, and that in the not distant future, scientific knowledge will be as indispensable as practical. With all endeavours to elevate the profession, I have the warmest sympathy." ALFRED WILCOX.

AN interview with a famous amateur exhibitor —Mr. F. M. Vokes, of Bird Lawn, Sholing— will appear next week.

## INSECT PESTS.

EVERYONE who cultivates the soil should be interested in this subject, Immense destruction is done every year (during last season it was very bad) by various insects which do their work so thoroughly that the gardener's hopes of producing fine specimens of flowers or vegetables are often dashed to the ground. Yet, in many cases it is the fault of the gardener, who has neglected to look after the plants sufficiently and keep them properly cleansed, so preventing attacks from insects.

Before giving an account of the various insects that attack our plants, it will perhaps be advisable to give a short, general description of insects. Most people know very little of entomology, but a little knowledge concerning the life history and formation of the various types of insects will enable everyone to apply remedies with far greater success than would otherwise be possible.

**How Insects Breathe.**

The perfect female lays eggs, and from these are hatched larvæ which, when full grown, become chrysalids, and from which eventually the perfect insects emerge. Insects do not breathe through their mouths, as many people imagine, nor yet by the aid of gills, but by means of a series of tiny pores, which are on each side of the thorax, or abdomen. This is why in many cases when we apply soft soap in any special wash prepared for the purpose of destroying insects, the results so often prove satisfactory. These pores become clogged through the insect being covered with a slimy coat, which closes the breathing pores, in consequence of which the insect becomes stifled and eventually dies.

Another important fact, well worth noting, is that there are two distinct and different kinds of mouths among insects. Some can bite and eat leaves, etc.; others can only suck the juices of plants; whilst some, on the other hand, can eat, bite, and suck. Among those that bite are beetles, grasshoppers, earwigs, and caterpillars, which can speedily be killed by poisoning their food, or covering the food they consume with poisonous substances. Among those which can only suck are aphides, plant lice, etc. These, however, cannot be killed in the same manner, for poison cannot be introduced into the sap of plants.

**Preventing Attacks.**

Though it is desirable, when possible, to use certain means to destroy the insects while they are attacking the plants, it is even more important to take steps to prevent the attacks being made. If more precautions were taken, the results would be better, and the life of the gardener easier. A great deal can be done by taking a few simple precautions.

In the first place, never allow weeds to grow in the garden. This, I am aware, is easier said than done, but if the gardener wishes to be successful, attention must be given to this important item. All plants have insects that feed on them, and these insects frequently leave the weeds for cultivated plants. Odd corners covered with weeds should be constantly dug, and kept tidy, otherwise they will be perfect breeding places for insects.

The refuse of crops or plants should never be placed upon the rubbish heap, and allowed to remain there, as the pests very often come to maturity there; neither should such refuse be allowed to lie about the garden. It should always be immediately burnt.

In mentioning the various insects which attack crops, it is impossible within the limits of the space at my command thoroughly to describe every one. Indeed, it is only necessary that I should mention the most important of them. The injurious insects which chiefly concern the general reader are:—Wireworm, flea beetle, crane fly, Pea and Bean weevil, diamond-back moth, chafer beetle or white grub, Onion fly, surface caterpillar, Celery fly, Carrot fly, red spider, stem eelworm, Asparagus beetle and fly, black fly, Colorado beetle, millipedes and centipedes, aphides or plant lice, Cabbage moth, Cabbage root fly, Asparagus fly, Hessian fly, slugs and snails, bulb or Tulip mite, and the Pea and Bean beetle. These insects we constantly hear about, because of the damage they cause.

**Wireworms.**

Probably no insect causes more harm, or is of a more destructive nature, than the wireworm; for hardly any crop is free from its ravages. Vegetables of all kinds suffer in their turn, and often choice flowers receive unwelcome attention and serious injuries from these insects. Wireworms always make for the roots of plants, and when once they get into the fibrous roots it is a most difficult matter to eradicate them.

Wireworms are the larvæ of a class of beetle popularly known as click beetles, the most prominent member of this class being the striped click beetle (Agriotes lineatus). They are called "click" beetles because when held by one end of the body a remarkable clicking sound is produced. Anyone who has made a microscopical examination of this pest could not fail to be surprised to see such wonderful jaws as the wireworm possesses. It is on account of its jaws that the wireworm so quickly tears away the soft parts of the stems and roots of plants, and this at all times of the year, except during hard frosts, when they are to be found deeper in the earth. Another important point to be remembered is that the pest lives at least three years in the wireworm stage, consequently their mischief is of long duration unless speedily checked.

These insects are about three-eighths of an inch long. They are to be found under stones, grass sods, and the roots of various flowers and vegetables. When it is noticed that these insects are about, it is advisable to use some good artificial manure—or ordinary superphosphate will be the means of keeping them away from the plants. E. A. PARKER.

*(To be Continued.)*

Oxford Dictionary of National Biography

**Moore [Moir, Muir], David** (1808–1879),
*horticulturist and botanist*
by E. Charles Nelson
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**Moore [Moir, Muir], David** (1808–1879), horticulturist and botanist, was born on 23 April 1808 at Dundee, Forfarshire, Scotland, the eldest son of Charles Moir (*b*. 1782), gardener, and Helen Rattray (1784–1832); David's baptismal record has their surname spelled Moir, but by 1830 the family had adopted the spelling Moore, and David also, about 1828, signed his name Muir.

Moore was taught locally; in particular, he learned botany from Douglas Gardiner, conservator of Dundee Rational Institution's museum. To receive horticultural training he was apprenticed to Mr Howe, head gardener of the Camperdown estate near Dundee, and after two years proceeded elsewhere, including James Cunningham's nursery at Comely Bank, Edinburgh. In November 1828 he was appointed foreman in Trinity College Botanic Gardens, Ballsbridge, Dublin, where he was assistant to James Townsend Mackay (1775–1862). Moore was an unsuccessful candidate during 1834 for the post of head gardener in the Botanic Gardens, Glasnevin, Dublin, but in June that year he joined the Irish Ordnance Survey as botanist. Based in Belfast, he explored the flora of north-eastern Ireland, making several discoveries including the narrow small-reed *Calamagrostis stricta*, and the club-sedge *Carex buxbaumii*, both now extinct in the wild. His observations were reported in Thomas Colby's *Memoir of the City ... Londonderry, Parish of Templemore* (1835; 2nd edn with illustrations by George Victor du Noyer, 1837).

In October 1838, following Ninian Niven's resignation, Moore was elected curator of the Botanic Gardens, Glasnevin. His position was upgraded to director by the Royal Dublin Society in May 1865, but the Department of Science and Art which financed the gardens withheld sanction until November 1869.

Moore, alerted by reports in a horticultural periodical, observed symptoms of late blight on potatoes growing at the Glasnevin Gardens, on 20 August 1845; this was the first verified record in Ireland of the disease that led to the destruction of the potato crops during 1845, 1846, and 1847, and thereby caused the great famine. Moore observed that this disease also killed other members of the potato family (Solanaceae) growing in the gardens' glasshouses during the winter and spring of 1846, and changed his views about the nature of the blight, to agree with the Revd Miles J. Berkeley that a minute fungus, named *Phythophthora infestans*, was the cause. Very few other scientists at the time agreed with Berkeley and Moore; the predominant opinion attributed the blight to ‘atmospheric conditions’ or to the ‘degeneration’ of the potato from its intensive cultivation in Europe. At Glasnevin, Moore experimented with treatments to prevent the spread of blight, and although he was not successful, his understanding of the fungal nature of the disease made his approach more promising than most contemporary attempts.

Moore supervised two significant horticultural advances at Glasnevin. Orchids were raised from seed to flowering stage between 1845 and 1849. In the early 1870s

hybrid pitcher plants, namely *Sarracenia* × *moorei* (named after Moore) and *Sarracenia* × *popei* (named after the gardens' propagator, William Pope), were produced by artificial pollination. As a botanist interested in Ireland's native flora, Moore's most significant contributions were the publications of his latter years, especially on mosses. His collaboration with Alexander Goodman More on *Cybele Hibernica* (1866) and related papers produced the earliest examples of maps showing the distribution of plant species in relation to climatic factors.

Moore received little recognition in his native or adopted countries. His doctorate was awarded (1863) by the University of Zürich. Among plants named after him are a Natal lily, *Crinum moorei*, and a hybrid horsetail, *Equisetum* × *moorei*.

Moore was married three times: on 7 April 1836 to Hannah Bridgford who died of typhus at Glasnevin in December 1840 (they had two daughters); in 1843 to Isabella Morgan who died on 7 November 1847 (they had two children); and on 7 December 1854 to Margaret Baker (1833/4–1917), who survived her husband and with whom he had five children. Their second child, and eldest son, Frederick William Moore, succeeded his father as curator (later upgraded to keeper) of the Botanic Gardens, Dublin. Thus father and son ran the Glasnevin Gardens for eighty-four years (1838 to 1922). Moore died at the Glasnevin Gardens, still in post, on 9 June 1879 following a bladder operation. He was buried at Mount Jerome cemetery, Harold's Cross, Dublin.

E. CHARLES NELSON

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**Archives** National Botanic Gardens, Glasnevin, Dublin, notes and catalogues | RBG Kew, Hooker MSS

**Likenesses** photograph, *c.*1865, repro. in Nelson and McCracken, *Brightest jewel*, p. 129 · engraving, repro. in Nelson and McCracken, *Brightest jewel*, p. 139

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E. Charles Nelson, 'Moore , David (1808–1879)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, Oct 2008 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/19101, accessed 28 Nov 2014]

David Moore (1808–1879): doi:10.1093/ref:odnb/19101

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## APPOINTMENTS FOR THE ENSUING WEEK.

TUESDAY, AUGUST 15—
Roy. Hort. Soc. Coms. meet. (Lecture at 3 p.m.).

THURSDAY, AUGUST 17—
Roy. Hort. Soc. of Aberdeen Show (3 days).

AVERAGE MEAN TEMPERATURE for the ensuing week deduced from observations during the last fifty years at Greenwich, 62.2°.

ACTUAL TEMPERATURE:—
*Gardeners' Chronicle* Office, 41, Wellington Street, Covent Garden, London. *Thursday*, August 10 (10 a.m.); Bar. 29.6°; temp. 71.0°. Weather—Bright sunshine.

**Bulb Cultivation in Britain.**

The exhibition of dry bulbs held last week in the Royal Horticultural Society's Hall was doubtless the first of its kind that has taken place in London. Its objects, we may assume, were, first, to bring to the public notice the fact that what we call "Dutch" bulbs can be grown satisfactorily in the British Isles, and, secondly, to encourage cultivators to extend their operations with a view to materially increasing the home supply. The question has recently assumed increased importance for gardeners, owing to the prohibition now placed on all importations of bulbs from Holland and other countries. But the exhibition was not the outcome of recently imposed restrictions, as is proved by the fact that the arrangements were made before anything was known of the Government's intention. It is pretty clear, therefore, that our growers were sufficiently satisfied with the results obtained in the bulb fields to encourage them to undertake fair competition with the best of those produced abroad. This is satisfactory, inasmuch as it goes to show that there is room for the industry to expand, whatever may happen after the war in regard to the importations.

The conference which took place during the holding of the show is reported on another page, and we strongly advise all horticulturists to read the practical remarks of the speakers on the points under discussion. Certain facts seemed to come out fairly clearly. For instance, Daffodils give better results generally in these Isles than any other bulb, and some specimens that were shown from Ireland appeared even more productive than they are usually seen in Holland. Further, as Mr. Arthur Sutton pointed out in the course of his interesting speech, it is the general experience that they give better flowers when forced than those obtainable from imported bulbs. Tulips come next, and Mr. Monro's fine exhibit of these was a revelation to many, not only in regard to weight, but in finish and appearance. This question of appearance will no doubt receive careful attention. At present, it is said that whilst the quality of British bulbs is often superior, in appearance they seldom equal the smooth-skinned bulbs imported from the Continent. How far this is a matter of soil has yet to be proved, and trials should be undertaken, in order to see whether or not by soil amelioration something may be done to remove or lessen this defect. In regard to both Daffodil and Tulip cultivation, but especially the latter, Mr. Barr expressed the belief that they were often cultivated primarily for supplying cut flowers, the sale of bulbs being only of secondary consideration. Mr. White referred to the point, and led his hearers to the conclusion that he was not prepared to say that bulb cultivation alone would be remunerative. Mr. Monro, who has great experience, both as a bulb grower and flower salesman, said that the trade in cut flowers gave the bulb cultivators an advantage over the foreigner, but, like Mr. White, he was not sure that any great extension of the industry would not cause a glut of flowers in the market, and seriously influence prices. In respect to this aspect of the case, there is just one point that may encourage growers to have more regard for the bulbs than the flowers, namely, that thereby they will avoid mistakes in the selection of varieties. Mr. Barr stated that some of the largest growers selected their varieties according to their value for supplying the market. Consequently, when later the bulbs are offered, it is not always the case that they are the particular sorts bulb purchasers require. By carefully selecting only the most saleable varieties, might it not be possible to become altogether independent of the flower returns? The old questions of sample and grading were introduced by Mr. Leak, and it was disappointing, after all that has been said and written on these questions, that Mr. Leak, with his experience of trade customs, could state, in the presence of such a meeting, that British traders were sadly to blame both for deficient grading and want of care in keeping the bulk true to sample. Fortunately, these failures are capable of being remedied, and with the general improvements in trade methods we all look for after the war, they will surely be eliminated.

We may mention that few of the speakers referred to Hyacinths, but MR. Barr expressed his conviction that in the case of Hyacinth cultivation British growers will never be able to compete with those grown in Holland, where he was sure the soil was more suitable. Crocuses he would class with Hyacinths as being more suited for Continental cultivation, but he proceeded to mention many other kinds of less common bulbs that would grow here just as well as Tulips.

Now that public attention has been drawn to the industry, we hope that continued efforts will be made to popularise the British-grown bulb as an article of good quality and one that will improve from year to year.

**Frederick Moore.**

In the death of Mr. Frederick Moore, at the ripe age of eighty-two years, horticulture loses a veteran of unusually wide experience, and ourselves a respected colleague, for he was a member of the editorial staff of this journal for twenty-one years. Descended from gardening parents, he was born in 1835 at Stanley Grove, now St. Mark's College, Chelsea, where he was subsequently educated. He turned his attention to gardening directly his studies were completed, and in course of time obtained experience in many of the largest and best known establishments. In subsequent years he filled the position of head gardener in several places in Britain, including Encombe, Isle of Purbeck, Shirley Park, Croydon, and Normanhurst, Sussex. In 1873, on the recommendation of Messrs. J. Veitch and Sons, he proceeded to Austria to take up the position of Obergartner to the reigning Prince at Eisgrub, in Moravia. The duties of this post involved unusual responsibilities. Mr. Moore had a very large staff to control, and his task was the more difficult owing to the fact that many on the estate and in the neighbourhood thought that the appointment should have gone to a German or Austrian. Circumstances connected with this aspect of the management eventually led up to Mr. Moore's return to England in 1879.

The climatic conditions there were very different from those that deceased had been familiar with at home, especially in winter, when the cold was more severe, rendering it essential to give protection to many plants that are perfectly hardy in England. He adapted himself well to the new conditions; first, by learning the German language during a preliminary stay in Vienna, and, secondly, by mastering the special gardening difficulties of the locality, showing a resourcefulness that won conspicuous success. On his return to England, Mr. Moore was employed for some time by Messrs. Veitch and Sons in their landscape gardening department, and during this period he helped to lay out some of the principal gardens in the Home Counties.

In 1883 the late Dr. Masters gave deceased an appointment on the editorial

staff of this paper, and shortly afterwards he became sub-editor. In this capacity he laboured faithfully for twenty-one years, only relinquishing the office at the end of 1903, when he was no longer equal to the exacting work inseparable from modern journalism.

His straightforward character and unswerving conscientiousness gained for him the respect of his colleagues, many of whom have long since passed away. After his retirement Mr. Moore lived for a time at Brighton, but he removed subsequently to Fulham, and a year or two ago to Ilford, where he died on the 4th inst., in his eighty-third year. He was twice married, and is survived by a widow and three daughters. The interment was on Tuesday last at Fulham Cemetery.

**Fruit and Garden Produce in the Netherlands.**—The Board of Agriculture and Fisheries is informed by his Majesty's Consul-General at Rotterdam that on July 15 the condition of fruit crops was only moderate on the whole. Apples and Pears were suffering rather seriously from scab, which cannot be checked to any extent owing to the scarcity of copper sulphate. Insects were doing damage in Limburg, and Cherries had suffered from the wet weather. Generally prospects for Apples vary from bad to fairly good, the best reports coming from Utrecht, Nymegen, and the district around Wyk-on-Sea; Pears are nowhere better than moderately good, and have practically failed in the Lower Betuwe. Late Cherries vary from moderate in the Meyery and Limburg to very good in the district around Houten. Plums are good in the western part of Utrecht, but only moderate elsewhere. Raspberries are almost a failure in North Brabant, the principal district for this crop, moderate about Winschoten, and good in other parts of the country. Tomatos are generally good, especially in Groningen, prospects being moderate in only a few districts.

**Mr. W. G. Pirie.**—The Earl of Dalhousie has appointed Mr. W. G. Pirie, Gardener at Dalhousie Castle, factor of his Dalhousie estates. Mr. Pirie is president of the Scottish Horticultural Association.

**Gardening in the War Area.**—In an interesting article by Lord Northcliffe, entitled "The Army Behind the Army," published in the *Times* of Monday last, it is stated that gardening is one of the hobbies of the men, and from the casualty clearing stations at the front to the workers' huts at the bases are to be counted thousands of English-made gardens. "The French, who know as little of us as we do of them, were not a little surprised to find that wherever he sojourns the British workman insists on making himself a garden. At a great veterinary hospital at one of the bases the men living a considerable distance from a town and away from other pastimes, have planted for themselves gardens that would be a credit to any prosperous London suburb in peace time."

**War Items.**—We regret to learn that Sergt. L. A. Iceton, 5-6 Battalion, Seaforth Highlanders, second son of Mr. W. Iceton, The Nurseries, Roehampton Park Lane, was killed in action on the Western front on the 29th ult.

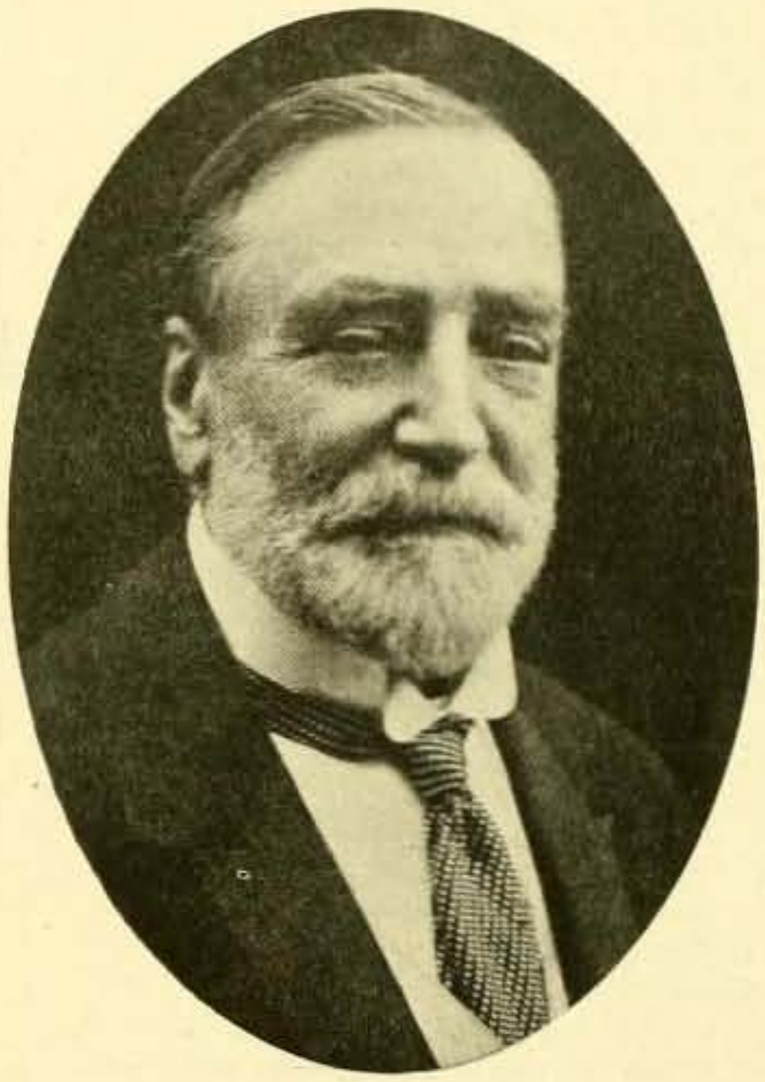
—— The *London Gazette* of the 7th inst. contains the announcement that Lieut. H. G. F. MacDonald has been promoted to the rank of Captain in the A.S.C. Captain MacDonald is the son of Mr. James MacDonald, Harpenden, In the early days of the war he was Company Sergeant-Major of the 1st Battalion of the London Scottish, and took part in the famous attack in September, 1914. In the issue for September 21, 1914, we published particulars of this fight, together with Sergeant-Major MacDonald's portrait.

—— We regret to learn that Captain Henry Drummond, a director of the firm of Messrs. W. Drummond and Sons, Ltd., seed merchants, Stirling, has been killed in action. Captain Drummond was a son of Mr. James W. Drummond, Wentworth, Stirling, and received a commission soon after the outbreak of war in the Argyll and Sutherland Highlanders.

## TREES AND SHRUBS.

### BUDDLEIA COLVILEI.

When visiting Monreith recently Sir Herbert Maxwell called my attention to a plant of Buddleia Colvilei in bloom, which has this season produced short racemes of flower. The plant is growing against a warm wall, and in an apparently good position, but much of its beauty has been lost by the shortness of the racemes, which resembled mere bunches. I wonder if this condition has been observed anywhere else this season; if so, it might be possible to arrive at the probable cause. Had it not been that there has been a good rainfall at Monreith this season I should have been inclined to attribute the inferior spikes to drought at the roots. The late frosts experienced further east in Wigtownshire and Kirkcudbrightshire have not been troublesome, and the plant itself, so far as its growth and foliage were concerned, was in the best condition. *S. Arnott.*



THE LATE FREDERICK MOORE.

## SALVIA WARLEYENSIS.

The new variety of Salvia illustrated in fig. 29 was exhibited by Miss Ellen Willmott at the Holland House Show on June 4 last, when the Floral Committee gave it an Award of Merit. The plant is a robust grower, the spike being some 2 feet tall and stout in proportion, whilst the leaves are large and cordate in shape, suggesting S. turkestanica as a parent. But the habit of the novelty is not so stiff as in S. turkestanica. The flowers are a deep shade of violet, with white lip and pistil.

## REMARKS ON THE CONDITION OF THE FRUIT CROPS.

(See Tables, Supplement, *Gard. Chron.*, August 5.)

### 0. SCOTLAND, N.

Ross-shire.—Strawberries were an extra good crop. Red, Black, and White Currants are exceptionally plentiful. Apples are very much under the average; the weather was very dull, wet, and stormy when they were in flower. Early Pears are a very poor crop, but late varieties are an average one. Plums are about average, the best variety being Victoria. *M. Martin, Novar House Gardens, Evanton.*

Sutherland. — The weather in spring and early summer was cold, wet, and inclement, with wind mostly from the north-east, north, and north-west. There was no summer weather until July. The present season is the worst I remember. *D. Melville, Dunrobin Castle Gardens.*

### 1. SCOTLAND, E.

Aberdeenshire. — The fruit crops are very late, and, owing to lack of sunshine, are of inferior quality, with the exception of Strawberries and small fruits. *James Grant, Rothienorman Gardens.*

—— The fruit crops are, on the whole, of good average quantity and quality. Owing, however, to the continued rains, lack of sunshine, and, in consequence, a much lower temperature than usual, they are quite a fortnight late. *John M'Kinnon, Haddo House Gardens.*

Banffshire.—The fruit crops in general are promising well, although they are three weeks later than usual. In the absence of spring frosts the fruits set well in most cases. With good weather from now the crops should be well up to the average. *George Edwards, Ballindalloch Castle Gardens, Ballindalloch.*

Berwickshire.—Apples bore a fine crop of bloom; but, owing to cold winds, the fruit set very badly. Cherries set well; Plum blossoms were very scarce; Apricots and Peaches set fairly well. Small fruits, such as Raspberries, Strawberries, Gooseberries, and Black and Red Currants bore good crops. *Peter Smith, Duns Castle Gardens, Duns.*

—— The fruit crops are a month later than usual. Apples have made an average set. Plums on walls and standards are both heavy crops. Cherries are also good. The earlier sorts of Strawberries yielded a record crop. Black Currants bore heavily, and the trees are free from mite. Gooseberry bushes and Raspberries are heavily laden. Our soil is a heavy, red loam. *Robert Stuart, Thirlestane Castle Gardens, Lauder.*

Fifeshire. — The fruit trees were smothered with blossom, but frost destroyed it to a great extent. Large trees are bearing very poor crops, especially Pears, Plums and Cherries. Some Apple trees are good, but most have poor crops. The soil in the gardens here is good, but with a cold clay subsoil. *W. Henderson, Balbirnie Gardens, Markinch.*

Forfarshire.—Owing to the exceptionally cold and wet weather in spring, Apples, Pears and Plums set badly. The scarcity of bees, owing to Isle of Wight disease, has probably been a factor in the non-setting of the fruit; and especially on walls trees. Strawberries were a fortnight late. *Robert Bell, Kinnaird Castle Gardens, Brechin.*

—— There are good average crops of small fruits, but the Apple crop is almost a failure, although the trees looked very promising in April. Gooseberry mildew is more prevalent, and is causing serious damage. The soil is loamy, with a sandy subsoil. *Andrew M'Audie, Ruthven House Gardens, Meigle.*

Haddingtonshire.—Apples will yield a good average crop, though some trees are not bearing Pears are cropping only on young trees. Some of

Oxford Dictionary of National Biography

**Moore, Thomas** (1821–1887), *gardener and writer on horticulture*
by Anne Pimlott Baker
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**Moore, Thomas** (1821–1887), gardener and writer on horticulture, was born on 21 May 1821 at Stoke, near Guildford, Surrey. He worked for several years at Dickinson's nursery in Guildford before being employed at Fraser's Lea Bridge nurseries in Leyton, Essex, in 1839. He moved to Park Hill, Streatham, as an under-gardener, in 1842, and two years later he became clerk to Robert Marnock, who was laying out the Botanic Society gardens in Regent's Park. In 1845 he also became sub-editor of *The United Gardeners' and Lord Stewards' Journal*, which was edited by Marnock. While at Regent's Park, Moore attracted the attention of John Lindley, and in 1848, through Lindley's influence, Moore was appointed curator of the Society of Apothecaries' botanic garden in Chelsea (the Chelsea Physic Garden). He remained at Chelsea for the rest of his life, a period during which the reputation of the Chelsea garden declined, partly as a result of the decision of the Society of Apothecaries to scale it down in order to reduce the financial burden on the society.

Moore spent much of his time on horticultural journalism. He was editor of the *Gardeners' Magazine of Botany* in 1850–51, the *Garden Companion and Florists' Guide* in 1852, the *Floral Magazine* in 1860–61, the *Gardeners' Chronicle* from 1866 to 1882 (with Lindley), the *Florist and Pomologist* from 1868 to 1874, and the *Orchid Album* from 1881 to 1887.

Moore's speciality was ferns, and he published extensively in this field, but he was also an expert on garden plants and florists' flowers, and in the 1870s he named more than 100 varieties of holly. He was elected a fellow of the Linnean Society in 1851. He was exhibition secretary of the International Horticultural Exhibition in London in 1866, and for many years was secretary to the floral committee and floral director of the Royal Horticultural Society. He was appointed one of the directors of the Chiswick garden in 1866. He was also a member of the Pelargonium, Carnation, Auricula, and Dahlia societies. He was in much demand as a judge at horticultural shows, and only a short time before his death was engaged in classifying the narcissi for the Daffodil Congress.

Moore's chief publications included his *Handbook of British Ferns* (1848, 3rd edn 1857), *Ferns of Great Britain and Ireland*, edited by J. Lindley, and nature-printed by H. Bradbury (1855), *Index filicum*, in twenty parts, ending at the letter G (1857–63), *Illustrations of Orchidaceous Plants* (1857), and *The Treasury of Botany*, with John Lindley (1866; 2nd edn, 1874). Moore also wrote the article ‘Horticulture’ in the ninth edition of the *Encyclopaedia Britannica*, with Dr Maxwell Masters, which was later expanded into *The Epitome of Gardening* (1881).

Moore died at his home at the Chelsea Physic Garden on 1 January 1887, and was buried in the Brompton cemetery. He left a widow, Elizabeth. They had at least one child, a son. Moore's collection of ferns was bought by the Kew herbarium.

ANNE PIMLOTT BAKER

**Sources** M. Hadfield, *A history of British gardening*, 3rd edn (1979) · M. Hadfield, R. Harling, and L. Highton, *British gardeners: a biographical dictionary* (1980) · Desmond, *Botanists* · *Journal of Horticulture, Cottage Gardener and Home Farmer*, 14 (1887), 3 · *The Garden*, 31 (1887), 36–7 · *Gardeners' Chronicle*, 3rd ser., 1 (1887), 48 · *Proceedings of the Linnean Society of London* (1886–7), 41–2 · d. cert.

**Archives** Chelsea Physic Garden, London, herbarium and letters · NHM, herbarium · RBG Kew, ferns and letters

**Likenesses** portrait, repro. in *Gardeners' Chronicle*, 1 (1882), 709 · portrait, repro. in *Gardeners' Chronicle* · portrait, repro. in Hadfield, Harling, and Highton, *British gardeners*, 209

**Wealth at death** £3234 12*s*. 9*d*.: probate, 31 Jan 1887, *CGPLA Eng. & Wales*

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Anne Pimlott Baker, 'Moore, Thomas (1821–1887)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/19151, accessed 28 Nov 2014]

Thomas Moore (1821–1887): doi:10.1093/ref:odnb/19151

Mr Moring



# The Gardens of Mr. A. W. Stirling, at Holme Lee, Goring-on-Thames.

AMONG amateur Sweet Pea growers who have been brilliantly successful at the exhibitions this year, Mr. A. W. Stirling takes a foremost place. At the National Show last year he won the Sutton Cup, was second the year before, and third this year, when he was also second for the Midlands Cup, and third for seedlings, no inconsiderable feat, bearing in mind the formidable array of opponents by whom he was confronted. His successes in London, however, did not surprise those who are familiar with his previous achievements. At Gloucester he beat Sir Randolf Baker, and, though Sir Randolf had his revenge two days later, the incident attests, in an emphatic manner, the remarkable excellence of the methods of cultivation pursued in Mr. Stirling's gardens at Holme Lee, Goring-on-Thames. Just as Sir Randolf Baker owes much to Mr. Usher, whose name is so well known in Sweet Pea circles, Mr. Stirling has, in the person of Mr. Moring, a most capable gardener, who has created the enthusiasm of his employer, and fully established a reputation as an expert of sound judgment. In the unavoidable absence of Mr. Stirling, he took me round the gardens at Holme Lee, on the occasion of my visit in August. Though, primarily, my object was to see and hear all about the Sweet Peas, there are other features of interest which afford convincing evidence of all-round skill.

The Sweet Pea quarters are in the kitchen garden, and soon after my arrival we discussed the varieties which find favour in Mr. Stirling's eyes, and have brought him honour and glory.

"These," said Mr. Moring, as we walked through rows quite twelve feet high, "include Lady Evelyn Eyre, Stark's Improved Elsie Herbert, Mrs. Hugh Dickson, and May Campbell."

"Of which the blooms are exceptionally fine," I interrupted.

"Yes, for carmine on cream ground they cannot easily be surpassed. In the same row are Isobel Malcolm, cream, and Mrs. C. W. Breadmore, a pretty cream-ground picotee. Constance Oliver is a good deep cream, but Dobbie's Cream is more distinctive, and therefore better. Gladys Burt is one of the most useful of the light shades of pink. Its neighbour is Hetty Moring, a flower like Agricola, white, flushed with a silvery lilac. It was raised here. Most of its stems have four blooms, and the variety is as strong and grows as high as any in the rows."

### SPRAYS WITH SIX FLOWERS.

"Do you cut many sprays with more than four flowers?"

"At North Hants Show in July this season we had eleven fives and two sixes; and all were placed. Fours are not unusual. In a vase at Gloucester, we had six fives on a pure white seedling, not yet named."

"Have you a preference for particular shades of colour?"

"We excel, I think, in crimson, scarlet, and orange. Sunproof Crimson is grown in quantity; you will notice the gloss on the flowers. Walter P. Wright adds to the value of its light blue flowers by the loveliness of its stems. Charles Foster is a better pink than ever this year; and President, mauve flaked, is very good. The cream pink is Doris Usher, of which we had a spray of six at the North Hants. Show. Mr. Stirling wore it in his button-hole the next day."

### SEEDLINGS RAISED AT HOLME LEE.

"Does Mr. Stirling attend most of the shows?"

"All of them; and he helps to cut the flowers. In fact, he takes the keenest interest in every stage of cultivation. Here is a rose-pink variety which bears his name."

"How many seedlings have been raised here?"

"Three. In addition to Hetty Moring and Mrs. A. W. Stirling, we have raised Cissie Moring, similar in colour to Helen Pearce Spencer, pretty for the table. Mrs. A. W. Stirling was first shown at Gloucester last year, and for the three we were awarded second this year at the National in the class for seedlings not in commerce.

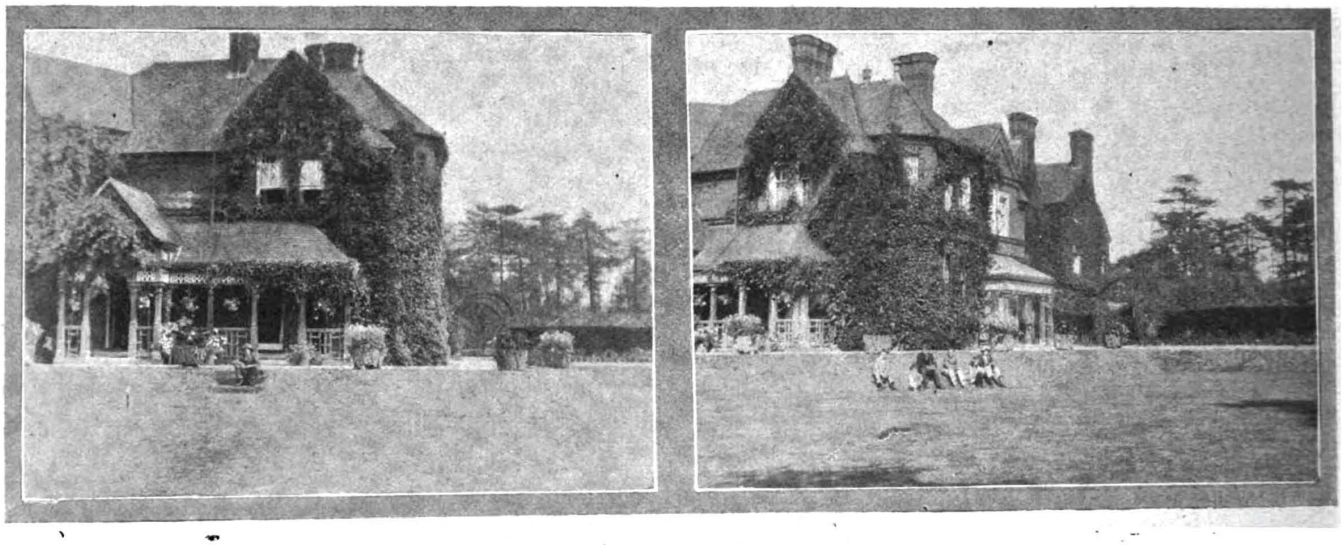
"Amongst mauves, Queen of Norway, a late-sown variety, is very fine; and we are well satisfied with a variety new in the market this year, Sutton's Southcote Blue. The same remark applies to Sutton's Royal Rose, with its pleasant orange sheen. There is no bigger flower than the salmon-rose Edith Taylor, which is also one of the best.

"Another new variety is Suffragette; its waved, light blue flake is pretty. Helen Grosvenor, orange, was in a winning vase at Gloucester. The next is Menie Christie, which is nice. But the flower is not quite large enough, and though it is sunproof and rainproof, we are discarding it. Size and weight are essential. One vase with small flowers is fatal to success."

"I see that you include Thomas Stevenson?"

"Yes; but the sprays do not generally have more than three flowers. Barbara got the medal at the North Hants Show, as the best bunch in the competition. Scarlet Emperor has larger blooms than Red Star, which some prefer to it; the flowers on a spray are chiefly threes. The stems, as well as the blooms of Stark's Loyalty, deep blue flaked, are exceptionally fine.

"Here is a spring-sown variety, Lilian, light cream pink. We have not exhibited it yet, but I have seen it shown. Rosabelle is a distinct rose, and though Red Chief has no length of stem, it has plenty of



VIEWS OF HOLME LEE, GORING-ON-THAMES, THE RESIDENCE OF MR. A. W. STIRLING.

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colour. Hercules, pink, is one of the best, and Nubian is an excellent maroon. Millie Maslin Spencer has a very long, but not a very strong stem, and its colour is not so telling as that of Royal Rose. I can speak warmly of Bolton's Dorothy, a pale mauve, which has been shown freely. Several stems have had five flowers, and one six.

#### PLANTS GROWN FROM CUTTINGS.

"You may be interested," continued Mr. Moring, "to know that two hundred and fifty plants were grown from cuttings. I put them in on the 8th of February, and have lost only three. They were up and in bloom as soon as the others, and quite equal in quality. The varieties were Hercules, Rosabelle, Evelyn Hemus, Red Chief, Nubian, and the white unnamed seedling."

"Is this the first year you have grown from cuttings?"

"No. I have done it on several occasions. The process of rooting is very simple. I put the cuttings in small pots in sandy soil, stand the pots in a box, and keep it in a cool greenhouse for three weeks. In that time ninety-nine per cent. root themselves. As a matter of fact, my experience is that Sweet Peas are easier than any other flowers to root from cuttings."

"When did you begin to cut blooms?"

"At the end of June, and the plants will go on flowering until the frost comes. Last year we put up a bowl full at Pangbourne, on October 16th, and the blooms were lovely."

"What is the total number of your plants?"

"About twelve hundred. There are nine rows, the prevailing shades of colour being cream-pink, white, salmon, crimson, cream, and orange. This is the first year I have grown them all on Bean sticks. Last year I tried several different methods, but I am satisfied that Bean sticks are the best, and they are not expensive. They do not cost so much as string, and they are preferable to wire."

#### A STRUGGLE WITH SOIL.

"Do you derive help from the soil?"

"In the winter it is as sticky as mud, and in the summer, in less than a week of dry weather, it is burnt up. A great disadvantage is the entire absence of lime in the soil; neither is there any iron in it. Lime has been put in because it is a necessity. The principal difficulty in the cultivation of Sweet Peas is the soil. We are not indebted to nature in this respect, for the soil is as hungry as it could be. Half a ton of lime has been put on nine rows of Sweet Peas, and manure is indispensable in the case of every crop. Ten loads of pig manure were dug into the ground on which the Sweet Peas are located, and five loads of rotted manures were put on the top. The land was not poisoned by it, and we shall have to repeat the process on the same ground in two or three years."

#### SHOW CHRYSANTHEMUMS.

"Judging by the appearance of your Chrysanthemums, they are rather a feature."

"Yes, we have been fairly successful in showing during the last two years. In 1911, the first year we exhibited, we won the Oxford bowl, and the success was repeated in 1912. I am hopeful that we shall win again in November, and be able to retain possession of the bowl. The competition was for nine vases of distinct varieties, three blooms of each, twenty-seven blooms in all. We were also first for six of any other colour, second for six whites, second for six yellows, and second for twenty-four distinct varieties. The last were on boards."

"Your foliage this year appears to be singularly good."

"I think we are in a little better form than we were this time last year. As to varieties, there is no particular run on colours, but the beauty and size of the flower and its general appearance are appreciated. We grow a hundred and twenty-six exhibition plants of the Japanese section. The bush varieties are grown to produce flowers for decorating the flowering house. You alluded to the beauty of the foliage. My experience is that if the wood is healthy, the foliage dark green and hard, the blossoms will be good also. When the flowers are in bloom there is only just room for them in the house, and we cut for the dinner-table as wanted. When we win the bowl we fill it with flowers."

"Have you any points to emphasise as to culture?"

"Carefulness in watering is of the utmost importance. In order to ascertain whether water is wanted in the pots, I tap them with a muffled stick. If they are dry, the sound will ring clear. We go over the plants every day. One of the great difficulties is to time the buds accurately, so that the blooming period may be prolonged."

"Then there are the Roses, which make a charming display in the pleasure grounds."

"They are planted wherever we can use them, as well as in the little Rosery inside Yew hedges. It is not absolutely limited to Roses, but includes Carnations, Clarkias, and a clump of a pretty little Pompon Chrysanthemum, which yields a mass of pink blooms.

"A good many of the Roses are standards, and Hybrid Perpetuals do better than Hybrid Teas. The pergola is sixty yards long, and I think all the best varieties are represented on it. Violas are used for ground-work."

"I notice that in the beds on the lawns you combine Dahlias with Roses. The Rose arch in the centre of the Dahlias is very effective."

"Both Roses and Dahlias are the better for the tank of bath water which runs under the arch. The Dahlias, nearly all of the Cactus section, are chosen for colour."

#### VEGETABLE CULTURE.

"From the appearance of the kitchen garden, I gather that you pay close attention to vegetable culture."

"We put up collections of vegetables at local shows, and come off very well. The culture is affected by the sticky soil, and we have to knock up great lumps to get the Potatoes out. Peas are grown in quantity. Webbs' King George is a Pea of tremendous size, and Webbs' Stourbridge Marrow is a great cropper.

"Other vegetables include Turnips, Carrots, Parsnips, Onions, and Tomatoes."

As we looked into some of the houses, which contained a number of fine Melons, a flourishing collection of Begonias Gloire de Lorraine, and a good show of Campanulas, I asked the extent of the gardens.

"Two acres and a half. I came here when Mr. Stirling took Holme Lee four years ago, and I was previously for six years and a half with Dr. Carling at Peppard. In addition to my duties as gardener, I am responsible for the well-being of a flock of Buff Orpington fowls, and they are a pleasant diversion." ALFRED WILCOX.

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Next week the gardens at Piercefield Park, Chepstow, will be described.

## THE POLYANTHUS NARCISSUS.

**A Section which carries many Flowers on each Stem.**

The ordinary type of Daffodil or Narcissus carries only a single flower at the top of each stem; but in the Polyanthus section several flowers are borne together, forming a loose cluster or head—hence they are sometimes known as the Nosegay Daffodils. They are consequently less stiff and formal in appearance, and so are especially useful for cultivation indoors, either in pots with soil, or in bowls with fibre. At the same time, they are very effective when planted outdoors, particularly among dwarf, spring-flowering subjects, but they should be covered with a little bracken if they appear above the soil before all chance of severe frosts has passed.

For indoor culture, the first batch of bulbs should be got in at once, as, like other bulbs, they require some little time to form roots before being exposed to light and warmth. This applies equally whether they are grown in soil or fibre, and may extend to anything from six to eight or even ten weeks. If to be grown in fibre, it is best to stand the bowls in a cool, dark, and airy cupboard or cellar, examining them every week, and giving water if the fibre seems to be getting dry.

Pots can be "plunged" out of doors, as they are not so valuable, nor so liable to be chipped or damaged as are ornamental bowls. The fibre or other material must cover the pots to a depth of several inches.

#### SOME VARIETIES THAT WILL PLEASE.

Further batches of the bulbs should be potted up at intervals of a fortnight or so, to take the place of the earlier ones when they go out of bloom.

For the first potting, try Gloriosus, Early Double Roman (both orange and white), Soleil d'Or (orange and yellow), and Paper White. These may also be used for the second batch, together with Bazelman Major, Mont Cenis (white with yellow cup), and Staten General (white).

For later potting, the fine new hybrids of Narcissus Poetaz should be obtained. Among the best are Elvira, Klondyke, Irene, and Jaune a Merveille. These grow taller, and the flowers are in every way larger and finer than the others.

**Splendid Bargains are to be found on our Advertisement pages.**

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finally black blotches, which burst, discharging their ripe spores. All affected leaves should be removed and burnt before this stage is reached, otherwise the disease will be perpetuated, and spread to other plants. Spraying with a solution of sulphide of potassium is useful when combined with this removal, but it has little efficacy by itself.

H. C. DAVIDSON.

# The Gardens of a Great Public Park.

INTERVIEW WITH MR. W. H. MORTER, F.R.H.S., SUPERINTENDENT OF BIRMINGHAM CITY PARK.

THE great city of Birmingham is singularly rich in public parks and recreation grounds. Moreover, the gardens in many of the parks are laid out in the most tasteful manner, and present many features of interest to horticulturists. Mr. W. H. Morter, the superintendent of all the fair demesnes belonging to the Corporation, is a well-known horticulturist, of culture and experience, with a special knowledge of forestry. For between eleven and twelve years he had charge of the estate and gardens of Lord Avebury, at High Elms, and his appointment, nearly five years ago, to his present responsible position has resulted in many important improvements in the Birmingham parks. Mr. Morter is a very modest man, and does not talk about himself, but during his term of office he has not only manifested taste and sound judgment in the exercise of the wide discretion permitted to him, but has so endeared himself to his subordinates that in February he was presented by the park employees with an electro tea service. His headquarters are at Cannon Hill Park, and it was in reference to the gardens in the "Queen of Parks," as it is locally known, that I recently had an interview with him. During the morning I spent some time in looking round, and making acquaintance with, at any rate, the principal features.

"What is the size of Cannon Hill Park?" I inquired, as its great area became obvious to me.

"Seventy-four acres. Large as it is, it is not, however, the largest of the Birmingham parks. Warley is a hundred and ten acres, but it is not laid out like this. It is simply a natural park."

"Perhaps it might be worth while to tell me the dimensions of the others under your control in addition to Cannon Hill and Warley?"

"Aston, 60 acres; Victoria, 44; Ward End, 54; Calthorpe, 32; Adderley, 11; Highgate, 9; Summerfield, 35; Bulsall Heath, 5; Burbury Street, 5; Queen's Park, 15; Lightwoods, 24. Then there are our recreation grounds—Park Street Gardens, nine acres; St. Mary Gardens, Walmer Ground, Nechells Ground, and St. Paul's Gardens, three acres each; St. Mark's and Coventry Street Ground, one acre each; and Musgrove Road (just completed), four acres. Moreover, ten miles away from Birmingham, but all under my control, are Rednall Hill (32 acres), Bilberry Hill (51 acres), and Beacon Hill (34 acres); these are used more as holiday resorts. If I add that there are six street enclosures, about eight acres in all, and about 3,500 trees in the streets, for whose welfare I am responsible, you will have an adequate idea of my obligations. But this is the principal park, all work is directed from this office, and every new seed or plant is tested here."

"When was this park opened?"

"On September 1st, 1873. As you doubtless know, it was the gift of Miss Ryland to Birmingham—her fourth and most splendid benefaction of the kind. It was previously her private estate, and she had it drained and laid out so as to render it suitable for a public park. The work was done by Mr. S. Hearn, my predecessor, for Mr. J. T. Gibson, a London man, and thirty-five acres were devoted to rare and choice trees, shrubs, and evergreens. Two pools, one covering an area of fifteen thousand square yards, and the other over ten thousand, were constructed."

"How much space is taken up by the flower gardens and lawns?"

"About sixteen acres. The lakes occupy about six, and the remainder consists of playing fields and ordinary park, including the cricket ground."

MR. W. H. MORTER.

"Is most of the bedding in the vicinity of the principal entrance in Edgbaston Road?"

"Yes, and much of it close to the Soldiers' Memorial, erected to the memory of the men who fell in the South African War."

**Favourite Spring Flowers.**

"I should like to have an idea of the number of bulbs you use."

"About 500,000 Daffodils, 20,000 Tulips, 5,000 Hyacinths, and Crocuses and Snowdrops galore. The spring bedding plants are chiefly Polyanthus, Arabis, Daisies, and Saxifrages. The double Arabis is the best thing we have. Wallflowers are not used; they would be cut."

"Which do you find the most useful of the varieties of Daffodils?"

"The Trumpet section, notably Emperor, Empress, Victoria, Sir Watkin, Golden Spur, and Horsfieldii. The small varieties are not suitable for public gardens. They do not make a show. The best Hyacinths are La Peryance (light blue), Innocence (white), King of the Blues (dark blue), Jacques (pink), and Koh-i-Noor (scarlet)."

"And Tulips?"

"The Tulips chiefly used are Montresor (yellow), Duzart (scarlet), Prince of Austria (orange), Proserpine (rose), Joost van Vondel (flaked), and Van Bergen (pink). I do not grow white Tulips (except a few of Snowflake), because of the smoke. In some of our parks it is futile to attempt to grow a white flower, because it is smothered before it opens. Of course, we have hundreds of thousands of bulbs in other places. I am only giving you figures about Cannon Hill."

"What is your principle of arrangement?"

"I believe in putting them in blocks of colour for effect, such as yellow with scarlet for a contrast. In a park like this, it is essential to have a mass of colour which may be seen at a considerable distance."

"Do you adopt the same principle with respect to summer bedding?"

"Yes, entirely. Of course, for summer, we use a large number of Geraniums, about twenty-five thousand, also a quantity of the Ivy-leaf section. Standard Fuchsias are largely used, likewise annuals. There is a certain amount of carpet bedding, and a good deal of sub-tropical work. As to the system, my beds are usually

THE SOLDIERS' MEMORIAL IN CANNON HILL PARK.

arranged in three tiers. For example, Paul Crampel Geraniums are carpeted with yellow Violas, and they are dotted with standard plants of Fuchsias and Ivy-leaf Geranium Charles Turner. Or Begonias Worthiana are carpeted with Violas Councillor Waters, with dot plants of Ivy-leaf Geranium Madame Crousse. Cannas I use largely in masses of one variety."

**Cannas and Sweet Peas.**

"Do you go in for many varieties?"

"A dozen—Baronne de Poilly (salmon-orange, shaded carmine), Cyclops (dark red), Duke of Marlborough (velvety crimson), F. R. Pierson (deep yellow, spotted red), J. B. van der Schoot (dark, citron-spotted), Leonard Vaughan (bright scarlet), Louise (rose-pink, tinged with red), Luigi Beretta (orange-scarlet), Petite Moxotte (rose, shaded carmine), President Mayer (deep crimson), Queen Charlotte (rich red, with border of canary-yellow), and Semaphore (rich yellow). Sweet Peas are another big feature. I always keep them in their separate colours."

"You might name some of your favourites?"

"The best crimson-scarlet is Queen Alexandra; for white, Dorothy Eckford; pale carmine, George Herbert; orange-scarlet, Henry Eckford; pale primrose, Hon. Mrs. Kenyon; rich pink, Paradise; pale lavender, Lady Grisel Hamilton; mulberry, Earl Cromer; salmon-pink, Queen of Spain; pale French grey, Mrs. C. Higginson; rosy-salmon, Prince Edward of York; dark blue, Brilliant Blue; sky-blue, Flora Norton; rich crimson, King Edward VII.; and many others. The best of all are Countess Spencer, and its hybrids."

"Do you grow great masses of any other flowers of one variety?"

"Yes, Pentstemons, of which I use half a dozen varieties—Phryne, George Home, Mr. Forbes, Paul Verlaine, Michael Carr, and Ninon d'Enclos."

"You might mention the names of the other Geraniums you use."

"Henry Jacoby (red), West Brighton Gem (scarlet), Constance (pink), Niphetos (white), Mrs. Cox (tricolour), Mrs. Quilter (bronze), Mrs. Parry, Flower of Spring, and Avalanche (silver). I am unable to tell you the name of the Fuchsias I use for standard work. I found, when I came here, a variety which had been grown for thirty years, and I have worked from it ever since. It has a purple corolla (single), about the same colour as Phenomenal, and is exceptionally free-flowering. The park-keeper who introduced it here is supposed to have brought it from Trentham. I pursue the same principle with regard to sub-tropical bedding, the chief plants used being Eucalyptus, Ricinus (Castor-oil), Solanums, and Wigandias."

**Annuals and Roses.**

"Then there are the annuals?"

"Ten-week Stocks are largely used, and I mass a great number of Antirrhinums. The latter I selected from different varieties of white, yellow, and scarlet. When I have once got a good thing, I believe in keeping it by propagating. By the way, I tested a quantity (sixty thousand) of the new double Lobelia, and I think that in a dry summer it will be a very useful variety. We have, however, a single variety, Lustrans, about the best I have seen."

"I notice that you have some Roses on poles?"

"They are a great feature in the season. With the Roses in those two beds are Delphiniums, white Phlox, and Gladioli Brenchleyensis. I find that Dorothy Perkins, Alberic Barbier, for climbers, and Gruss an Teplitz for bedding, do wonderfully well, but I cannot say much about other varieties of Roses, because I have not yet gone in for anything special. I was told that Roses would not do in Birmingham, and I have been testing them to see how far the statement is accurate. I am quite satisfied that they will flourish, and hereafter they will be grown largely."

"How about Carnations?"

"We have a few. At present they are chiefly limited to Raby Castle and Duchess of Fife. Here, again, I keep to masses of one colour, and I carry out the same idea with flowering shrubs. At Ward End Park, which I have just finished laying out, I have just planted, in groups of a dozen to fifteen, varieties of flowering shrubs, labelling each distinctly, so that visitors can see for themselves the varieties that are grown. Here the flowering shrubs consist mainly of different varieties of Spiræas, Guelder Roses, Berberis, Rhododendrons (named hybrids), Deutzias, Forsythias, Azaleas, Lilacs, Cotoneasters, Laburnums, and different varieties of Thorns."

Spring Beds in Cannon Hill Park.

"What are the biggest trees in the park?"

"Poplars, by far. Oaks are gradually dying out in this locality, but Limes, Beeches, Chestnuts, and Sycamores thrive. The ordinary shrubs include Hollies, Laurels, and Aucubas."

**Herbaceous Plants.**

"The majority of your beds, I see, are big?"

"Yes, and most of them take a thousand plants to fill. I have one big bed of Astilbe Davidii, raised from seed when it first came out, which is very fine when the flowers are expanded."

"Do you grow many herbaceous plants?"

"You can judge that by the long borders. The varieties which do best are Galega Hartlandi and G. officinalis alba, Gypsophila paniculata and G. plena, Helianthus Miss Mellish, giganteum, multiflorus, Bouquet d'Or, and maximus, Heleniums autumnale, Bolanderi, and striatum, Campanulas pusilla, carpathica, turbinata, glomerata, Dahurica grandis, grandis alba, Moerheimi, and persicifolia, Centaurea macrocephala, Lychnis chalcedonica, Pyrethrum James Kelway, Aphrodite, and Vivid, Aconitum Fisherii, napellus and autumnale, Asters amellus, acris, Photograph, Enchantress, Hon. Edith Gibbs, Mrs. Raynor, Ryecroft Pink, Purple, and Orient. We also grow in the borders, Anemone japonica, hybrid Delphiniums, Gaillardias (hybrids), Coreopsis grandiflora, Tritomas, Liliums, Pansies in variety, and large numbers of hybrid Gladioli.

"Then," continued Mr. Morter, "we have a large number of early-flowering Chrysanthemums, growing nearly twenty varieties, namely, Bobbie Burns, Carrie, Dolly Prince, Goacher's Crimson, Harvest Home, Horace Martin, Lillie, Madame Desgrange, Madame Marie Masse, Maggie, Market Red, Market White, Crimson Marie Masse, Rosie, Orange Pet, Pollie, Piercy's Seedling, and St. Crouts."

**The Water Garden and Rock Plants.**

"You appear to be making a water garden?"

"We hope in time to have a very good one, about the eighth of an acre in size. Choice varieties of Lilies will be grown in the pool, and the edges will be adorned with bog plants and Iris Kæmpferi. With regard to rock plants, you may like to have the names of some of the principal varieties which do best on this soil."

"I suppose you go in for a good many Aubrietias?"

"Seven varieties—Dr. Mules (purple), Fire King, Lilac Queen, Hendersonii, Moerheimii, Leichtlini, Souvenir de W. Ingram. The Saxifrages are Guildford Seedling, Valdensis, Sturmania, Rheii, cochlearis, aizoon major, pyramidalis, longifolia, Queen of Saxifrages."

"Which do you find the best Sempervivums?"

"Arachnoideum, Schmitti, tomentosum, Triste, Powelli, pyrenaicum, and globiferum. The Sedums are corsicum, dasyphyllum, kamtschaticum, and spathulatum. We find that the Rock Rose does extremely well. The varieties are roseum, floribundus, ladaniferus, and formosum. Then we have half a dozen varieties of Alpine Phlox—Nelsonii, grandiflora, atro-purpurea, Vivid, G. F. Wilson, and Kathleen. The Helianthemums are roseum, coccineum, flore-pleno, lutea, thymus, nicans lanuginosus, frecineus, and argenteus. We have several varieties of Muehlenbeckia complexa, Œnothera sinensis, Primulas cashmeriana, rosea grandiflora, Sieboldi, and japonica. P. Kewensis does well in summer, outside."

"You seem to have a large collection of Alpines?"

"But I only started two years ago to form the rockery. Here are a few more—Veronica cupressoides and Steetorii, Lithospermum prostratum, Incarvillea Delavayi, Arenaria cœspitosa and aurea, Iberis sempervirens and Little Gem, Aster alpinum, Euphorbia cyparrissias, Gypsophila cerastioides, Androsace carnea and sarmentosa, Gentiana acaulis and verna, and Hutchinsia alpina. One of our features in this part of the park during the season is the Phlox

border, in which we have eleven varieties in quantity, and several of the newer varieties in smaller batches, namely Coquelicot, Etna, Eugene Danzanvilliers, Tapis Blanc, Iris, Josephine Gerbaud, Sheriff Jorry, Roi des Roses, Pecheur d'Island, Sylphide, and Brilliant."

**The Students' Garden.**

"Have you any other feature I ought to see?"

"You have not yet seen the students' garden, which is quite one of our most interesting sights. Three years ago it was put in order, and it now contains everything that can be got together to interest the students of English growing plants. People coming here can learn the names and habitat of the plants for themselves, both the names of the plants and the places from which they come being plainly labelled."

"What is the size of the students' garden?"

"It is about an acre, and approached, as you see, under an archway of Clematis vitalba. On the other arches in the garden, which help to make it beautiful, are planted Golden Hops, Gourds and Polygonum. At the top of the

WATERFALL AND ROCKERY CAVE IN CANNON HILL PARK.

garden is a fine collection of between forty and fifty varieties of Saxifrages. In the centre is a bed of different kinds of grasses, chiefly British, but including Italian Rye Grass and others, to show the difference in growth."

"How many beds are there altogether?"

"About a hundred. All plants run in order. That is to say, you get one family in a bed, the beds including such families as Primulaceæ, in which are examples of such different types as the Cowslip and the Creeping Jenny. In another bed, side by side, are the Garden Rhubarb (Rheum rhaponticum), and the Turkey Rhubarb (Rheum officinale). There are five beds of the Liliaceæ family, the prettiest of which is Colchicum autumnale. Other beds include families like Umbelliferæ, Caprifoliaceæ, and Orchidaceæ (British Orchids)."

Finally, we inspected the Fernery, where most of the varieties of English Ferns can be found. This includes the old water garden, on the banks of which flourish Buck Beans, Grass of Parnassus, Water Lilies, and Bulrushes. There was not time to go the whole length of the Queen Drive, which extends for three-quarters of a mile, and challenges comparison with the drives in the London parks, shrubs, flowering shrubs, and trees being planted on either side, with a few perennials in the borders. Near the main entrance are extensive greenhouses, covering a considerable area; these are used for bedding and propagating plants for all the other parks and gardens in the city. My last impression of the gardens in Cannon Hill Park was the Tudor crown, which, when bright with spring or summer flowers, must look remarkably handsome. ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 294.—SPRING WORK

DEAR KATE,—Now that the winter seems to be over, there is no end to the work that should now be done, for the next ten weeks are perhaps the busiest time of the year in the garden. Besides the sowing of flower seeds in the open and under glass, there are the Vines to be pruned and trained, the pot Strawberries to be watered twice a day (for the fruit is swelling fast), the early Roses to be kept clean by constant syringing, and many early seedlings (Tomatoes, Lobelias, Petunias, etc.) to be pricked out into boxes, and gradually hardened off until they are fit to stand in a cold frame, towards the end of April.

The Cannas have been shaken out and repotted in rich soil, and are now starting in the warm house; the Hippeastrums (which were repotted in February, with the great white Crinums and other Amaryllids) are all in full growth, in the same warm, moist atmosphere, strong, sturdy flower-stems appearing quicker than the foliage, on some of them. The young Chrysanthemums are crying out to be potted on, and must soon go out into a cold frame, to keep them dwarf and robust; and, besides all the work under glass, there is the kitchen garden, where the Peas and Beans, Onions and Carrots, Radishes, Mustard and Cress, Broccoli, and Cauliflower should soon be sown for succession, although the earliest Peas and Broad Beans are, of course, well up, and must be earthed up and staked, if necessary.

**Sow Runner Beans.**

Runner Beans can now be sown in pots (putting each in a separate thumb-pot, or three or four seeds, as far apart as possible, in an 8-in. pot of good garden soil), and kept under glass (but as cool as possible, short of frost), until the middle of May, when they can be planted out, watered, and sheltered for a few nights with an empty flower-pot over each until cold winds are over, when the result should be a fine crop of early Beans. We are carrying out this plan with inoculated seed of that very fine Runner Bean, Best of All, and we mean to water the plants with nitro-bacterine a week or two after planting them out. This variety gave a splendid crop of Beans here last year, the pods being very long, and quite stringless, produced, too, in large bunches; we find it decidedly true to its name, and prefer it to the rest.

Cucumbers and Melons may now be started in hotbeds, the seed having been sown at the end of February, and the little plants kept warm and moist in the greenhouse; they must be carefully watered with warm water when necessary, but do not overdo the moisture near their roots, for they do not need much water there until they are in full growth, although the air should be kept moist under the frame by syringing around them. Both Melons and Cucumbers are best planted on little mounds of fine soil, mixed with lime or mortar-rubbish, and the ventilation of the frame must be carefully regulated, never giving them a sudden draught of cold air, but opening the frame gradually as the temperature rises in the morning, and closing it at three o'clock in the afternoon.

Hero of Lockinge and Earl's Favourite are two finely-flavoured Melons which we find do well in frames; they need to be carefully attended to, pruned, and fertilised when they have at least eight female blooms expanded, only allowing four of the finest fruits to remain on the plant, after a week or two, if you want them to be large. After that they will need to be top-dressed every ten days, with a little rich soil, soot, or fertiliser, and will need more warm water, and also more air, as they swell and begin to ripen. By that time the weather will be warm, and the frame should not be quite closed, even at night, for ripening fruit always requires plenty of air, or it will not have much flavour.

**Considerations of Temperature.**

It is the same with forced Strawberries and Grapes, and the difficulty of keeping the temperature up whilst the top ventilators are open is one which is not always easy to get over in winter. But by this time of year there should be stronger sunshine to help us, and no opportunity of giving fresh air to our ripening fruit must be lost. Do not, however, open both the lower and the upper ventilators at once; a chill may be fatal to the fruit, and the lower sashes are best kept shut until really warm weather sets in. Draughts should always be avoided, especially while the winds are cold, but a little air may safely be admitted, even in such weather, by a slight opening of the top ventilators. I have tasted magnificent-looking forced Strawberries and Grapes at the table of a friend who has many gardeners, but they were almost without flavour, and scarcely worth eating, because this point of fresh air in ripening had not been grasped, and the houses had been kept too close.

leaf-curl is very prevalent this season. The disease is so widely spread that no country where the Potato is cultivated seems to be free from it, and in most, if not all, of those countries, it is on the increase, especially in the United States. It is caused by a parasitic fungus, which does not confine itself to the Potato, but attacks also the Tomato, though in the latter case the symptoms are different and

MR. G. MULLINS.

the disease is given a different name—black rot or black stripe. It is, therefore, not improbable that the extended cultivation of the Tomato has had something to do with the spread of the fungus. The curled leaves of the Potato are so characteristic that it is impossible to mistake the disease. Several important facts about it have been discovered experimentally at Kew. The mycelium is conveyed by the seed tubers, which, however, remain hard and firm, and the resulting crop is infected if it is allowed to mature in the ordinary way. But if it is lifted some time before it is ripe, the tubers are healthy, from which it is clear that the mycelium does not pass into them until a later stage. This explains why seed Potatoes grown in Ireland or Scotland are generally more free from the disease than those grown in the South of England. A dressing of kainit applied at the time of planting seems to act, in some measure, as a preventive, and is recommended by the Board of Agriculture. No cure is known. So far, spraying has proved useless. Of course, infected haulm should be burnt, and not left lying about the ground.

**A Beautiful Rose.**

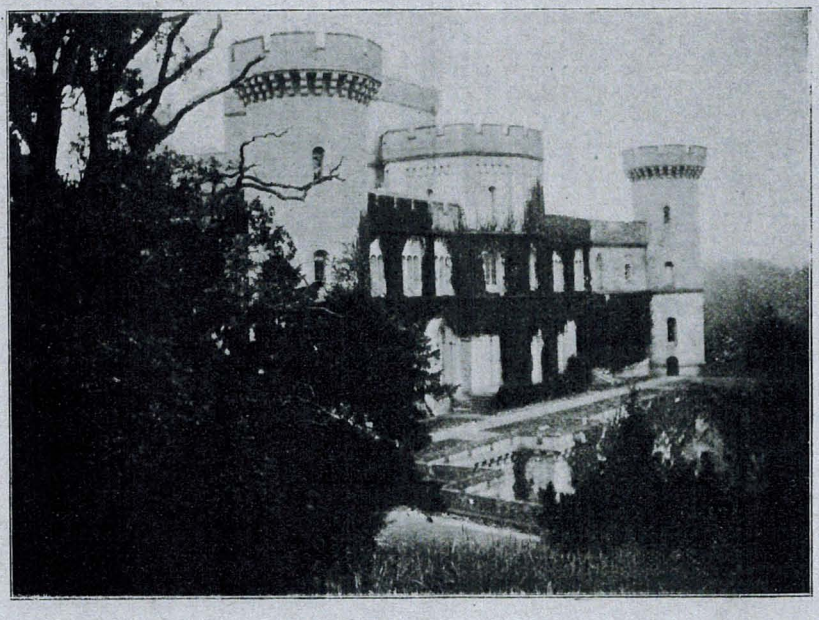
July 30th.—Although that beautiful Rose, William Allen Richardson, has this season, like many other varieties, not been altogether true to character, some of the earlier buds having opened almost white, it has flowered remarkably well, and the flowers have lasted much longer than usual. In my garden it was quite free from mildew, and though aphides made their appearance on it early in spring, one or two sprayings proved sufficient to clear them away. Like other climbers, it has a tendency to flower chiefly at the top, but if some of the younger shoots are trained in low down, as shown in the illustration, the flowers are distributed more evenly. These low horizontal shoots rarely have a long life—the main current of the sap passes them by and flows into those that are more erect—but that does not matter much. If the position suits the plant, there are sure to be plenty of other shoots from the base to replace those that show signs of failure.

H. C. DAVIDSON.

# The Gardens at Eastnor Castle, Ledbury.

INTERVIEW WITH MR. G. MULLINS.

IT is impossible to speak of the gardens at Eastnor Castle without a reference to the famous seat of the Somers family. The noble pile of buildings which, on the occasion of my visit in June, I approached from Ledbury, was erected by the first Earl Somers in 1812. Castellated in the style of a Norman baronial castle of the time of Edward I., it combines the stately features of a feudal fortress with the charms of a modern home. From a purely horticultural point of view, the interest of Eastnor centres in the fact that under the auspices of the late Mr. Coleman, who was head gardener for upwards of thirty years, the gardens achieved a great reputation. Mr. Coleman was for years a member of the Council of the Royal Horticultural Society, and was recognised as one of the highest authorities on fruit-growing under glass. It says much for his successor, Mr. Mullins, that the reputation has been well maintained up to the present time, and it was with particular pleasure that I made his acquaintance at his pretty house near the gardens. We at once proceeded in the direction of the Castle, but a closer inspection of the building was deferred until we had spent some time in its immediate neighbourhood amongst the splendid specimens of Coniferæ which form one of the chief attractions of the pleasure grounds.



EASTNOR CASTLE.

"Most of these," said Mr. Mullins, "were planted by Charles, Earl Somers, father of Lady Isabel Somerset, and grandfather of the present peer."

"With such a fine display, it is difficult for you to indicate the more noteworthy; but perhaps you can kindly name a few?"

"The specimens of Abies are entitled to take first place. They include A. Smithiana, bracteata, cephalonica, grandis, lasiocarpa, nobilis, Nordmanniana, pinsapo, Albertiana, and Douglasi."

"Pinus also appears to be strongly represented."

"The most valuable Pinus include austriaca, insignis, laricio, muricata, pyrenaica, Ayacahuite, Lambertiana, and monticola. Of Cedrus, there are atlantica, atlantica glauca, deodara, and Libani. The Cupressus include Lawsoniana, macrocarpa, and nootkatensis. Other remarkably good specimens are Cryptomeria japonica, elegans, and Sequoia sempervirens. Of course, the height of some of these trees is remarkable, an Abies bracteata being seventy feet high, and others equally distinguished by their loftiness."

**The Terrace Beds.**

"How large are the pleasure grounds?" I enquired, as we proceeded to the terraces.

"There are about a hundred acres enclosed," rejoined Mr. Mullins.

"And what does the magnificent view from the embattled parapet on which I am standing embrace?"

"Facing you east is the Herefordshire Beacon, a lake of twenty-two acres, studded with the Red Dogwood, and the deer park, six hundred acres in extent. The bedding on the south side you will see better if you descend the stone staircase which leads to the lawn terrace, and the fountain erected by Lady Henry Somerset, after designs suggested by a fountain at Viterbo."

"How are these beds filled?"

"In spring with Polyanthus, Tulips, and Hyacinths. I have a good variety of Polyanthus for framework. For summer, Begonias, Heliotropes, and Geraniums are used. The scarlet of the Geraniums (Paul Crampel) shows up the colour of the numerous Golden Yews which adorn the lawn terrace. On this side of the Castle itself the Ampelopsis Veitchii grows as high as the parapet."

A Famous Vinery at Eastnor Castle.

This Vinery is believed to have been built before Eastnor Castle itself, over a century ago. It contains one Black Hamburgh Vine, which fruits yearly, as shown, though upwards of one hundred years old.

**Rose Garden and Rockery.**

"Then, there is the west side of the Castle?"

"There, you see, with a sundial in the centre, is a little Rose garden. One of the two beds in the middle is filled with Irish Glory (pink), and the other with Irish Beauty (white). The four beds of a single variety are Perle d'Or, Viscountess Folkestone, Mrs. John Laing, and General Jacqueminot. At the back of this garden is a rockery planted with spring varieties, and on the west towers of the Castle are Roses (yellow Banksian) and Magnolias."

"When was the rockery made?"

"It is quite a recent addition, and was planted three years ago. There are still Saxifrages and other plants in flower."

But here, and elsewhere, the charm of Eastnor lies largely in the lovely walks, the grassy slopes, and the enchanting glades, none of which has been spoilt by the introduction of features at variance with the natural beauty of the place. Much time might have been spent wandering up and down the hilly grounds, but with a rapid glance at several clumps of thriving shrubs, including striking specimens of Ilex dipyrena, and a peep into the spacious cricket ground next the orchard, we made our way, through a quaint avenue of Irish Yews, to the celebrated kitchen garden, in which fruit trees and plants vie with each other in productiveness, while the ranges of houses and the breadths of vegetables also challenge attention."

**Pears on a South Wall.**

"Will you make notes as we go along, or will you take sections separately?" asked Mr. Mullins.

"Whichever is more convenient."

"Then, perhaps, we had better take things as we proceed. For example, on this south wall are some of our choice Pears, such as Beurre Diel, Durondeau, Doyenne du Comice, Marie Benoist, Conference, Margaret Marillat, Pitmaston Duchess, Jargonelle, and Beurre Superfin."

"And the Apples facing?"

"They were put in horizontally, and uprights were added. The advantage of this plan is that the fruit colours brilliantly, because it gets the maximum of light and sun. The varieties here are chiefly Cox's Orange Pippin, Lane's Prince Albert, Cox's Pomona, The Queen, Tyler's Kernel, and Baumann's Red Reinette."

**Favourite Peaches.**

Entering a range of Peach houses, Mr. Mullins observed,

"We draw all our trees from maidens, which are grown in the nursery. They can be shifted from one point of the garden to another without risk of losing a crop. In the early Peach house, which was only planted this winter, are Hale's Early and Duke of York Peaches, with Lord Napier Nectarine. The second house also contains Lord Napier, and Peaches Violette Hative and Dymond. In the mid-season house there are Hale's Early again, Bellegarde, and one of the newest varieties—Late Devonian. This tree, which has been planted three years, thrives remarkably, and is a tremendous cropper. We keep on thinning. The Nectarines on the wall are Dryden and Pitmaston Orange."

"All Peaches seem to do exceedingly well."

"I think they do. The large Peach house, which was built originally for Palms, is eighteen feet high, so we get large trees, with plenty of growth on them, to throw up good fruit. For flavour, Bellegarde is one of our favourites. Stirling Castle is a good substitute for Royal George, if the latter mildews."

"But you have a splendid tree of Royal George."

"Yes, we have taken hundreds of Peaches off it this season. Stanwick Elruge is a useful Nectarine, nearly black in colour."

"Do you grow many varieties of Melons?" I inquired, as we looked into a little pit.

"Hero of Lockinge, Frogmore, and Blenheim Orange. The last is admirable for early work, and for flavour is not easily beaten. I finished cutting Melons in one house the second week in June—a week ago—and got about three dozen fruit from it. Now, we come to some of the Vineries."

**A Secret of Successful Cultivation.**

"Is this your late Vinery?"

"Yes. I am strongly in favour of inside borders for late or mid-season houses. But an outside border is useful in addition. One of these Vines is a Muscat over forty years old, and other varieties are Gros Maroc and Lady Downe's Seedling. Also, we have Black Morocco."

"That is a Grape not generally grown?"

"At any rate, it is a very difficult Grape to colour. It is not easy to set, and requires a great deal of care in fertilising. We get it nearly perfect, but not quite. With respect to Madresfield Court, the berries crack very little. I make no difference in the treatment of this variety, except to ventilate a little more freely. One of the secrets of success in growing Grapes is to keep the borders moist. This applies not only to Madresfield Court, but to all varieties. It is a fatal mistake to allow the soil to be dry."

**The Celebrated Vine.**

"You have a celebrated vine at Eastnor, reputed to be of about the same age as the great Vine at Hampton Court."

"You are now entering the house. This Vine, Black Hamburgh, which entirely fills the house, seventy-six feet long and eighteen feet wide, can at any rate be traced a century back, and is supposed to have been connected with the original house, Castle Ditch, the ancient manor house, where the family lived from the sixteenth century till the present castle was built, in 1812. Naturally, it is regarded as quite an heirloom."

"Moreover, judging by the great quantity of fruit, it has a very practical value."

"Some of the bunches now weigh four to five pounds. There have been between three and four hundred bunches on it, but I have reduced the number to less than three hundred, which can be carried quite easily. We have grown a bunch weighing over seven and a half pounds, and we get not only fine berries and fine colour, but splendid flavour."

"The leaves, too, seem to be in the pink of condition?"

"Yes, there is nothing flabby about them. Though the stem is thirty inches round, young growth is still coming from it. The vitality of the Vine is amazing; the roots are well at home, and, of course, the tree is well fed. For this purpose we use chiefly liquid manure from the farm."

**Tree Carnations in Quantity.**

"You have more Vineries still?"

"The next is an early house, with Muscats and Black Hamburgh, but we do not force very strongly. Then, in another house, Madresfield Court is grown by itself, and no doubt it is better, if convenient, to grow it alone. Diverting your attention for a moment from fruit, we grow about a thousand Tree Carnations in the adjoining house. They are grown in 7-in. pots."

"When do you start them?"

"In October, and they keep on flowering till the Malmaisons come in. The house, you will observe, has a step stage up the centre, and side stages; it is also extremely light and airy, points of considerable importance where winter-flowering Carnations are grown. We have nearly all the varieties, but grow chiefly in bulk Britannia, Fair Maid, Enchantress, and La Belle. At the end of May the stages are cleared, and Tomatoes planted. The varieties are not numerous. We chiefly use Carter's Sunrise, which is a very prolific cropper, and cannot easily be surpassed."

**Apples and Pears for Show.**

"And now we resume the fruit."

"This is another orchard house, which at present contains Apples in pots, but will be used later for Peaches. The Apples are chiefly Cox's Orange Pippin, Ribston Pippin, and Washington. There are also a few Pears, but the Pear house contains my best Pears."

"The Apple trees have some fine-looking fruit on them."

"So, I think, have the Pears. They are planted, as you notice, in a border, and grown on each side of the house. Here we get the largest fruits, the principal varieties being Marguerite Marillat, Souvenir du Congres, Commerce, and Triomphe de Vienne. In the Fig house are four varieties—Brown Turkey, Black Ischia, Negro Largo, and Pingo de Mel."

"I see you have a Carnation border outside."

"We grow Border Carnations largely, because there are no blooms that will travel so well in the summer. Quantities of these are sent to Scotland without any damage. The varieties include Countess Melville, Meta (a Tricolour, striped, very good, indeed), Grenadier, George Macquay, and Raby Castle. Close to the Carnations is a wall which in winter only was planted with sweet Cherries, which promise to do extremely well. The varieties are Bigarreau Napoleon, Elton, Black Eagle, Black Tartarian, Governor Wood, Bigarreau Noir de Schmidt, Frogmore Early Bigarreau, Waterloo, Windsor, and Belle d'Orleans."

**A Comparison of Systems.**

"How long is your Peach wall?"

"Sixty yards, and twelve feet high. Here we gather our best fruit outside. One of the varieties, little grown, is Abec, which is ripe early in September, and may be termed an early Bellegarde in appearance and flavour. Its flavour is really superior to many varieties. Gladstone also does well. Noblesse is one of the best in flavour, but does not travel well. Two good Nectarines are Pitmaston Orange and Lord Napier. Now, I want to show you, side by side, the new system, and the old one.

"The new system," continued Mr. Mullins, "consists of cordon trees, which were planted two years ago. They average forty-two fruits on each tree. Of course, they want a lot of attention to keep them in limited bounds. But, planted as they are, four feet apart, with a little care in the tying, the cordon is, my opinion, a better system than fan-training. At present I am very pleased with the new system, and expect to get some fine fruit. The wall is much better covered than with the old fan-trained trees."

"They certainly seem to fill every inch of space, from the top to the bottom of the wall."

"And, in addition to the economy of space, they are more ornamental. The varieties I am experimenting with are Late Admirable, Alexander Noblesse, Violette Hative, Late Devonian, and Walburton Admirable Peaches, and Dryden and Pitmaston Orange Nectarines."

**Features of the Herbaceous Borders.**

"You grow a good many Apples on the bush principle?"

"Making a great point of thinning them well out. By this means, each branch practically acts as a cordon, and each fruit is exposed to light and air. The crops are wonderfully good this year, notably of the varieties Peasgood's Nonsuch, Cox's Orange Pippin, Worcester Pearmain, Ecklinville Seedling, and The Queen. Next, by way of variety, you might make a note of the herbaceous borders, edged with rock plants. The latter include Alpine Phloxes, Lithospermum prostratum, Iberis gibraltarica, Aubrietia Dr. Mules, Arabis alpina, and Rock Roses. Among the tall-growing plants are notably Incarvillea Delavayi, Hemerocallis fulva, Senecio, Doronicum, Phlox divaricata, Pentstemons secundiflorus, Dianthus alpinus, Inula glandulosa, Astilbe Davidii, and Dictamnus albus, the plant which flames up when a light is put to it. Here we come to another Peach wall, including the same varieties as before mentioned, with Barrington, a very late variety, which finishes the season."

"What about Morello Cherries?"

"We have an immense crop. The Plums on the wall are Coe's Golden Drop and Jefferson's; a wall with an eastern aspect is planted entirely with Greengage Plums. The Gooseberries used for dessert purposes include Roaring Lion, Duke of Sutherland, Companion, and many other varieties. Strawberries are not grown largely outside. We keep the plants fruiting for two years only, the varieties being Royal Sovereign, Givon's Late, Prolific, Bedfordshire Champion, President, and Fillbasket. Red Currants are grown on bushes, and on walls, where we pick them as late as November."

THE RESIDENCE OF MR. G. MULLINS, AT EASTNOR CASTLE GARDENS.

**More Fruit on Cordons.**

"You grow Pears also on cordons?"

"A large number, the varieties including Charles Ernest, Emile d'Heyst, Winter Nelis, Josephine de Malines, Beurre Clairgeau, Beurre Superfin, Williams's Bon Chretien, etc. We start some of the standard Apples here, to plant out in the orchard. One of the chief is Tom Putt, and other good varieties for orchard cultivation are Annie Elizabeth, Flanders, Court Pendu Plat, and Lane's Prince Albert. No Apple fruits so well in a young stage as Prince Albert."

**Peas without Sticks.**

"Do you grow a great quantity of Celery?"

"Yes, and it is all one variety, Major Clarke. We start digging in September, and grow Lettuces on the ridges. The Potatoes include Duke of York and Ashleaf Kidney for early use. For the main crop we grow Up-to-Date, chiefly in the field, and it is the best Potato for any purpose. Peas are a very great feature."

"I notice that you have a number without sticks."

"I gave up sticks two years ago, except for the Sugar Pea, and I find that the crops from dwarf Peas on a given space are larger, as well as costing less in money and labour. I do not put them in trenches, but draw a drill and sow the Peas. I well manure the ground in winter, and, as soon as one crop comes through, I sow another—say, once in two or three weeks. For very late supplies, I sow on a south border. Not only are dwarf Peas easier to pick, but the birds do not trouble them nearly so much. The soil is heavy loam."

"Peas suggest Sweet Peas."

"They are grown in clumps of one variety, the six best being Mrs. Hardcastle Sykes, Helen Pierce, Norah Unwin, Prince Olaf, Evelyn Hemus, and Clewer Countess. One of our features in regard to flowers is the 'annual quarter.' Here are a large quantity of white and yellow Centaureas. They come up on long, wiry stems, flowering in July and August, and are most useful for decorating. To get them to bloom early, they should be sown in gentle heat in April, but they can be treated as an annual. In this quarter, too, are also a batch of Ten-week Stocks and Comet Asters, also for cutting."

"Then, there are the Roses?"

"Most of these are the newer varieties, and principally Hybrid Teas. There are large borders of Hybrid Perpetuals in great variety. Finally, you might notice our large collection of Phlox. The two best varieties are Tapis Blanc (dwarf white), and Coquelicot. We begin to cut Phloxes in July, and they give us a mass of flower."

**The Career of Mr. Mullins.**

"How long have you been head gardener at Eastnor, Mr. Mullins?"

"Twelve years, and for two years before I was head gardener at Reigate Priory, Lady Henry Somerset's place in Surrey. I was previously, at different dates, managing foreman under the agent for the Empress Eugenie at Farnborough Hill; in the gardens at Sunbury

duced by fungi at the approach of winter, and are called resting spores, more nearly resemble seeds, for they have been fertilised, and are capable of themselves of reproducing the parent plants. No food is associated with them, as it is in the case of all albuminous plants, so immediately the conditions are favourable for germination they must be able to obtain food from external sources, otherwise they must perish. Hence they must be at the time on a suitable medium, such as the leaf of a plant on which they can grow, and moisture must be present. "Disease caused by fungi," says Mr. Massee, "is dependent on weather conditions; or, to state the case more exactly, it depends on an excess of moisture in the air and absence of sunshine." And he adds, "No one ever saw or even heard of an epidemic of Potato disease during a dry season." It is while the spores are resting on the leaves—while they are germinating or have only just germinated—that the gardener has the best opportunity of stopping their injurious progress. If they are sprayed then they are destroyed, and the disease which they cause is prevented.

H. C. DAVIDSON.

## ROSE-GROWING IN THE NORTH.

A few hints on Rose-growing, more especially for northern amateurs, may be useful at this time of the year, for in the North we do not usually favour planting Roses in the autumn, or before the beginning of March.

One of the greatest secrets of success, to my mind, is the preparation of the ground. It must be remembered that in northern industrial gardens we have in most cases no genial soil or atmosphere to help us. Obviously, then, if we are going to make a success of Rose-growing, we must not imagine that they can be stuck in anyhow, in any rough soil, for they do not grow wild up here to the extent that they do in the genial South.

Usually it is not possible to trench ground deeply, but if it can be managed the labour is by no means wasted, since the Roses will give a splendid return for the extra trouble. However, if trenching cannot be done, the ground should at any rate be double dug, and plenty of basic slag, wood ashes, and soot worked into it. Of animal manures, the most successful on a strong soil is strawy stable manure, a difficult commodity to get just now.

Regarding the planting, I have already mentioned that the best time appears to be early in March, and to be successful it is advisable to buy really strong trees, and pay a good price for them, since cheap stuff is very often rubbish. Should the weather be hard at the time that the Roses arrive, the planting should be delayed, since no good purpose can be served in planting in frost-bound soil. The planting itself should be as firm as possible, and the taller Roses should have stakes put to them at once. In the case of climbers, it is a great mistake to plant the Roses first and erect the arches afterwards.

As regards varieties, there are, of course, a very large number to choose from, but the following are all exceedingly good, and will not object to being planted in suburban areas: Betty, Captain Christy, Caroline Testout, Earl of Warwick, F. K. Druschki, General McArthur, Lady Alice Stanley, Lady Pirrie, Madame Abel Chatenay, Madame E. Herriot, and Princess Mary. A few others which may be strongly recommended include A. K. Williams, Avoca, Captain Hayward, Dorothy Page Roberts, George C. Waud, James Coey, Killarney, Lady Ashtown, Madame Ravary, Mrs. Alfred Tait, Mrs. John Laing, Richmond, and Victor Hugo.

Regarding climbers, one's feelings are mixed. Albéric Barbier, a genuine favourite with some, succeeds badly, and American Pillar is not as free-flowering as it might be. Given strong plants of Dorothy Perkins, Crimson Rambler, and Hiawatha, however, the gardener will be all right.

E. T. ELLIS, Sheffield.

# FAMOUS BRITISH :: GARDENS. ::

### TILGATE CRAWLEY.

*Interview with Mr. E. Neal.*

THE charms of a choice collection of shrubs are never more apparent than on a bright, if cold, day in the depth of winter. Then, when all other vegetation has died down, or is bare and desolate, the eye is gladdened with the sight of green and other coloured leaves, bright berries, or richly-tinted stems, that serve to remind us that winter has its compensations as well as its discomforts. This was borne in upon me when, at the end of January, I had journeyed down to Tilgate, near Crawley, Sussex, the seat of Mr. J. A. Nix, J.P., to see Mr. E. Neal, who is in charge of the gardens there.

Trees and shrubs are a strong feature of Til-

MR. E. NEAL.

gate, and this is scarcely surprising, seeing that Tilgate Forest is on the estate, which is of considerable extent, its boundaries reaching from Three Bridges to Crawley and Balcombe, while the drive from one lodge gate to another is upwards of three miles. There are also four lakes, the largest with an area of fifteen acres, the others bringing up the total to thirty acres. Standing on high ground, magnificent views are obtained from the house, Reigate and Leith Hill being visible in one direction, the distant hills of Kent in another, with much of Sussex in yet another.

"We have no formal beds, nor a Rosery," Mr. Neal explained; "but everywhere we strive to preserve the natural beauties of the trees. shrubs, and wild plants."

"What are the principal trees on the lawn?"

"Among the best are the Wellingtonias, which have done very well, although they are said not to like a very exposed position such as this. There is a very fine Silver Fir, Abies cephalonica, and good specimens of Abies magnifica and Pinus insignis. The Weeping Ash, too, is very noticeable."

"How much of lawns have you?"

"About five acres. As we have been so short-handed we have done nothing to them for three years, but have taken good crops of hay off them. The turf is naturally not in good condition now, but I am going to put the machine over it during frost, then harrow it to break down the lumps, and finally cut it lightly."

### RHODODENDRON HYBRIDS.

A walk through the woods brought us to the lakes, and from these, still with trees overhead, we made our way towards the shrubberies. These are very extensive, and are especially rich in Rhododendrons. In one place a large shrubbery is made up of the hardy R. ponticum, with cunningly devised nooks and dells where seedlings of the more tender R. Chelsonii and R. Aucklandii thrive in the shelter thus afforded.

"I am greatly interested in Rhododendrons," said Mr. Neal, "and have made a large number of crosses. Among others I have crossed Aucklandii seedling with Maddeni and with Lindleyanum pollen, and also crossed arboreum with Chelsoni pollen. Some of the crosses were made in 1914, and the seedlings have stood out of doors for the last two years without taking harm."

"Is the soil particularly suited for Rhododendrons?"

"No; it is largely clay, lightened with leaf-mould from the forest. There is an unlimited supply of that. In the forest there are a lot of Himalayan Rhododendrons, which do very well."

"Your collection is, I suppose, very comprehensive?"

"Yes; there are a number of species, and all the best of Waterer's hybrids. We have here one of the original plants of Pink Pearl, and, of course, many younger plants. A Rhododendron that is very good is Wilsonii. It makes a neat little bush, with small leaves and pretty rose flowers. Another that we have out here is R. formosum, which is usually treated as half-hardy. Here is a grove of Himalayan Rhododendrons that is not quite so satisfactory. Some of them do well, but with others the bark breaks away, and part of the tree dies, though the other part flowers as usual."

### EFFECTIVE SHRUBS.

Here and there, in clearings among the trees, shrubs of all sorts are planted. Huge clumps of Bamboos, of various kinds, are to be met with, and concerning these Mr. Wood remarked:

"They grow almost like weeds, and yet they are nowhere near water. There are many other fine things that are worth noting. Here is a fine tree of Hamamelis arborea, the Witch Hazel, which I think looks very pretty at this time with its bright yellow flowers. A tree that does very well is Stuartii camelliæflora; it is rather uncommon, but very effective. The Edwardsia tetraptera has been remarkably fine. On the other hand, the Maidenhair Tree, Gingko biloba, is trying to grow, but is not very happy at present. Viburnum Rhitidophyllum is handsome with its large leaves, and it flowers and berries well—the flowers are white. Berberis Bealli flowers in winter if the weather is mild. Here is the flowering Dogwood, Cornus florida, which has white and pink flowers. Phelodendron amurensis is

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another tree you do not often see. This specimen is fifteen feet high. Catalpa bignoniodes is getting to be a nice tree, and is very handsome when in flower."

"There is a fine clump of Erica in flower."

"Yes; Erica codonoides is its name. It is quite twelve feet high. The smaller ones round it are self-sown seedlings. Farther round in another plantation are some more of them, and other Heaths, such as E. arborea, australis, Veitchii, and varieties. The soil is the ordinary clay, mixed with leaf-mould, but when planting I put a little finer soil about the roots."

These various shrubs and trees were pointed out as we passed along, with many others of note, such as a fifteen feet high plant of the rare and rather tender Magnolia Watsoni, which seemed quite happy out of doors, the neighbouring trees affording it protection against the worst of the winds; Cotoneaster pannosa, some six feet high, with its arching branches laden with bright berries; Andromeda Catesbæa, with handsome foliage; and many Azaleas and seedlings of Syringa Wilsoni. In one place, too, is a large plantation of Rambler Roses on pillars and chains.

"The Roses," commented Mr. Neal, "are much in want of attention, which I have not been able to give them; and as for the rockery here, it has had to go altogether, and I am afraid the stronger-growing plants have completely smothered the others."

Many parts of the shrubberies still remained to be explored, but just at this time snow and sleet began to fall, so we beat a retreat towards the houses, commencing with the Vineries.

The first Vinery contains eight different varieties—Black Hamburgh, Appley Towers, Lady Hastings, Madresfield Court, Muscat Hamburgh (two), Mrs. Pince, Gros Maroc, and Lady Downe's.

### YOUNG CANES ON OLD VINES.

"I am a great believer in running young canes on old rods, especially with the black varieties, and find it is most successful. All the Vines here are treated in this manner, and they bear abundantly. In the early Vinery, which we are now entering, I have inarched Muscat of Alexandria on Alicante, and it does very well indeed. Madresfield Court, inarched on Black Hamburgh, gives splendid results, and so does Appley Towers; but Muscat of Alexandria, when inarched on Black Hamburgh, is not much good, the bunches being very stunted."

The next house was formerly filled with Palms and other foliage plants, but they were turned out at the beginning of the war. It is now occupied by pots of Amaryllis, mostly seedlings bought at Veitch's sale. From this house we passed into the stove, with a good collection of Anthuriums—Scherzerianum, Rothschildianum, and Veitchii—on the staging. Dendrobium nobile, D. Ainsworthii, and others, with a lot of Cypripediums—which had been very fine, but were now going off—were also staged, while in a propagating case were a number of cuttings of Perpetual-flowering Carnations. But of these I saw more in the next house, where many of them were in flower.

"Which do you regard as the best varieties?" I asked.

"Some of the old ones want a lot of beating. For table decoration I still prefer Winter Cheer, which is a warm, bright colour. I have propagated it for the last twenty-three years from the original stock, and it is as robust as ever. Mary Allwood is the best of its colour; and for a white I choose Snowstorm. Baroness de Brienen is unbeatable, and in spite of its not being a free-blooming variety I would not be without it. May Day is another favourite, and so is Britannia."

From this house we passed into the Mal maison house, where a good batch of Princess of Wales was prominent; and then into the early Peach house. All the trees in this house are trained transversely, a useful style, as Mr. Neal remarked, as it enables him to grow so many other things in between them. The varieties are Dymond, Bellegarde, Early York, Violette Hâtive, Thomas Rivers, and Nectarine Peaches, and Lord Napier, Pine Apple, and Rivers' Orange Nectarines. Replying to a remark as to silver-leaf, Mr. Neal said:

### A PREVENTIVE OF SILVER-LEAF.

"My belief as to silver-leaf is that it is due to an excess of sap in the trees. Consequently, if I notice a sign of it in a tree, I take steps to check the flow of sap by cutting out a strip about half an inch wide half way round the bark. This causes the tree to bleed at the part where cut; and I allow the sap to gum, and remove it each week."

"Does the tree fruit while this is going on?"

"Yes; it fruits just as usual. In course of time the wound heals, and it may be necessary, a year or two later, to repeat the operation. Some trees I have done as many as four times. It answers well in the case of Peaches, Nectarines, Plums, and Apples."

"Is it effective in the case of a tree already badly attacked?"

"When I first tried it some of these trees were in a bad way, and I found it necessary in one or two cases to cut away a branch, but I have not lost a tree. In fact, you can see a difference the first year."

In confirmation of his statement, Mr. Neal showed me where he had made the incisions on the trees, both in this and in the other houses, and there was certainly no sign of disease.

Fig trees in the next house—formerly a Rose house—are likewise trained crosswise. The three varieties are Brown Turkey, Black Ischia, and Negro Largo. Of these Brown Turkey does far the best, and the fruit does not crack, while Negro Largo is not so satisfactory. Then, after glancing at a span-roof Melon and Cucumber house, not used during the war, and the pits where early Potatoes are grown, we came to the old Tomato house.

### TOMATOES BEST IN POTS.

"I find the Tomatoes do better when grown in pots all through than if planted out in the borders of the houses, or in the pots plunged up to the rims in the soil. Last year I tried some each way as an experiment. Those plunged in pots were least successful. I thought it might save watering, but the soil does not get warm enough for them, and in no case did the roots get through the drainage hole in the pots, but sent up roots above the surface, so that I had to top-dress them. This showed the Tomatoes were not happy when plunged, and I shall not grow them that way again. The varieties I grow chiefly are Sunrise, Aviator, Ailsa Craig, and Kondine Red. Aviator is not very good when planted out, but it is one of the best for early work."

The late Peach house, sixty feet long, was next visited. Here the varieties are Walburton Admirable and Prince of Wales Peach, and Victoria and Pine Apple Nectarine. On the back wall are Pears Louise Bonne of Jersey, Marie Louise, Durondeau, and Beurré Superfin. In this house Mr. Neal showed me more trees ringed against silver-leaf. Outside this house, and partly sheltered by it and the wall, is a large specimen of Magnolia Delavayi, which has been there two years, and which it is hoped to harden thoroughly. It gets cut back in winter, but comes up again with the return of spring. At the time of my visit it was still healthy and unharmed.

Another house, sixty feet long, three-quarter span, contains the second-early Peaches and Nectarines—early and late Grosse Mignonne, Bellegarde, Violet Hâtive, Barrington, Humboldt, and Pine Apple—the three houses between them maintaining a supply from July to October. Dessert Pears, Doyenne du Comice, Williams' Bon Chrêtien, and Beurré Superfin, are on the back wall. The Peaches are not trained right up to the roof, but are arched over, and above them are shelves on which early Strawberries are raised, and late Peas grown in pots. The houses, built by Messrs. Gray and Co., of Chelsea, are on most up-to-date lines, and ventilation is easily managed.

### MAKING A KITCHEN GARDEN.

With this we completed the houses, and we now turned our attention to the kitchen gardens. Including the orchard, this is five acres in extent, two acres being walled in. This part faces south, and slopes a little to the west. On each side of the principal path is an herbaceous border, six feet wide, with horizontally trained fruit trees behind. In the centre is a fine pond, supplied by springs from the forest.

"Is the soil good to any depth?" I asked.

"No," was the answer; "there is no great depth anywhere, and underneath is a solid, cold clay. I have had practically to make up the soil since I came here, twenty-three years ago. There was then only about six inches of good material on top, but by yearly additions of leaf-mould and potting soil I have succeeded in raising it another foot. All the old potting soil from Tomatoes, Chrysanthemums, and other plants goes on. On the walls, both inside and out, are Pears, Plums, and Cherries. The choicest Pears here are such as Emile d'Heyst, Beurré Hardy, Doyenne du Comice, Marie Louise, Beurré Superfin, Louise Bonne of Jersey, Beurré Bosc, Durondeau, and Williams' Bon Chrêtien. On the north wall are Gages—Early Transparent, Late Transparent, Jefferson, Coe's Golden Drop, and Belgian Purple. On the outside of this wall, which faces south, are Cherries. The variety is Duchess of Bordeaux, a very useful late sort. It is allowed to remain on till November—the later it is left out the better—and then put in the fruit room. It keeps until January or February. On the border in front of this wall we have early vegetables."

"What Apples do best as trained trees?"

"Cox's Orange Pippin does extra well, either as cordon or trained. Others are Bismarck, The Queen, Lane's Prince Albert, Early Victoria, Rival, Potts' Seedling, Worcester Pearmain, Adams' Pearmain, Peasgood's Nonsuch, Keswick, and Lord Grosvenor."

### SOME FINE PEAS.

"You still have plenty of good Brussels Sprouts?"

"They have done remarkably well this winter, and the plants have been up to five and six feet high. Scrymger's is the best variety I know of."

"What about Peas?"

"Gradus is a good stand-by for early work, and Duke of Albany is another. For mid-season I like Sharpe's Standard, and for late, Gladstone and Autocrat. In Runner Beans there is nothing to beat Hackwood Park Success."

"And these fine beds of spring Cabbages—what are they?"

"Ellam's Early and Flower of Spring."

"Do you grow many Potatoes?"

"We lift about three tons on an average. We are not much troubled with disease. Last year I sprayed twice, as I think it is a good preventive. I may say that I am a believer in deep cultivation for all vegetables, and dig and trench every year."

"How large is your staff at present?"

"It consists of eight—old men over sixty and boys. My foreman and kitchen garden foreman are both in the Army still. I have had to do all the pruning myself."

Walking through the orchards, and noticing that most of the bush fruit was netted or caged in, I inquired the reason.

### A HUGE FRUIT CAGE.

"Birds do a great deal of damage here. There are all sorts, from tits to bullfinches, and even

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game birds, and they not only go for the fruit, but they peck the buds in winter. This fruit cover is an idea of my own. It is sixty yards long by thirty yards wide, and in it are four hundred cordon Apples of the best varieties."

This fruit cover is an arched structure, with upright iron posts on the outside, connected at the top by horizontal bars, also of iron. Upright posts run down the middle, and support the transverse sections. Wire netting encloses the sides and ends, and string netting —which can be put on and taken off as required—goes over the top.

The standard Apples in the orchard looked so healthy and clean, and promised so well for the coming season, that I asked Mr. Neal to give me a few details of some of them.

"In the first place, I recommend high planting on soils such as this. The roots should be practically on top of the soil. Annie Elizabeth fruits best as a standard; and so does Mère de Ménage. Barnack Beauty comes clean, and always does well. Edward VII. is a very useful Apple, whether trained or untrained, and I think it is one of the coming commercial varieties. William Crump and Ribston Pippin both canker very much. The two finest Russets for flavour are St. Edmunds and Egremont. Lord Hindlip is a shy bearer, but American Mother is excellent; and Court Pendu Plat is a very nice late dessert fruit. Nancy Jackson is an old but good variety."

Many choice Daffodils have been raised at Tilgate, and a long border in which they are planted was pointed out to me.

"Had it been later in the year," said Mr. Neal, "I should have had some good blooms to show you. Daffodil raising is Mr. Nix's hobby, and a number of new varieties have been raised here, and a lot of seedlings are coming on. They are grown purely as a hobby, and not for commercial purposes."

#### A GOOD WINNING RECORD.

"You have, I believe, been a most successful exhibitor?"

"I have been exhibiting since 1901, and in addition to the large number of firsts, seconds, and thirds for Daffodils, I have received many awards for fruit and flowers. I won the gold medal at the R.H.S. fruit show in 1914, and in 1915 was awarded the silver gilt Hogg Memorial medal. I have had ten silver gilt Knightian medals for fruit, and three silver Knightians for Grapes. At Brighton I twice won the gold medal for fruit, and also won five silver medals. Other gold medals include that of the National Chrysanthemum Society, and the Festival of Empire at the Crystal Palace, and the Sussex County Show. I may say that Mrs. Neal often helps me in staging the exhibits; indeed, when I exhibited on one occasion at Brighton, she put the things up for me, as I was judging at Haywards Heath in the morning, and when I got to the show in the afternoon I learned I had won the gold medal."

W. J. CHITTENDEN.

Next week: The gardens of Combe Bank, Sundridge, Kent.—Interview with Mr. Charles Hall.

## SOME OF THE NEWER ROSES.

Every season we add a large number of new Roses to our collection, and these are obtained from home and foreign raisers as soon as their introductions are put into commerce. We endeavour to test every new variety that we possibly can, with the object of procuring something that is just a little better than anything we already possess. This year, for example, we have nearly one hundred new sorts on trial; if we get half a dozen that are really worth propagating on a large scale we shall, indeed, be lucky. That, at least, is my experience. And it is as well to say, too, that one year's trial is not sufficient in order to assess accurately the merits or demerits of a new Rose. I can illustrate what I mean by an experience of last season. The new crimson Roses, several of which flowered for the first time, were all badly "off" in colour. They proved an almost hopeless lot—their condition was so bad, so far as colour was concerned. But it was impossible to condemn them as wholly worthless, because most of the older crimson kinds were in a similar category. That grand variety, General McArthur, was nearly blue with us last season; so, too, were Richmond and Mrs. E. Powell. The best of the crimsons was Lieut. Chauré, a grand variety which deserves a wider popularity than it enjoys at present. In my experience, last year was a bad one for all crimson Roses. I never profess to be quite so up-to-date as some of my contemporaries in regard to new Roses. I prefer to allow a year or two to pass in order to enable me to make a full experience of any new variety, and, although my opinion of some of the newer kinds may appear to be a little belated, I have the satisfaction of writing with some little authority, and not as the scribes.

#### SOME GOOD YELLOWS.

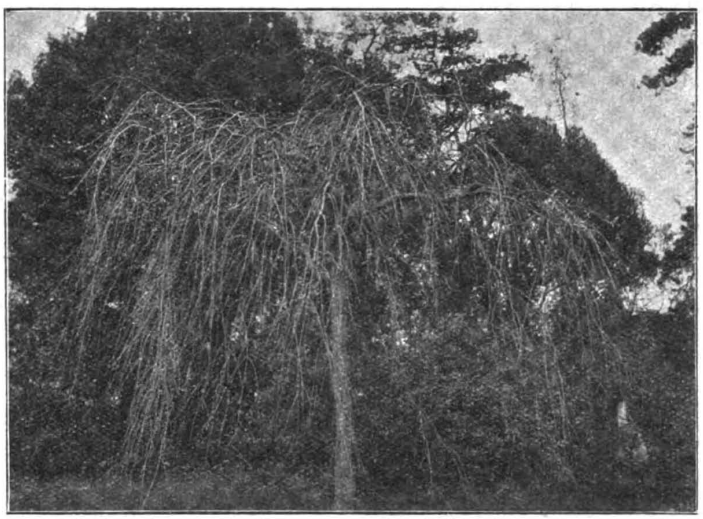
Yellow Roses are supreme favourites, and there is a very great interest in varieties of this popular colour. I at once rule out Rayon d'Or, Constance, and Miss Stewart Clark, as well as Iona Herdman, as worthless. They all have had a fair trial, and what between black spot and an evil habit of dying back, I emphatically say that they are not Roses for my garden. I find that Mrs. Wemyss Quin is—up to last season—the best yellow Rose. It has none of the vices—mildew, etc.—of many other Roses, and many amateurs have written to say what a pleasure it has been to them, and how attractive it has proved. It is a decorative Rose of the highest order.

Golden Emblem, a later introduction amongst yellow Roses, flowered here last year for the first time, and while I am not prepared to say definitely that it will ultimately displace Mrs. Wemyss Quin, I do say that, if it retains the character it has shown, then it may be regarded as our finest yellow Rose. Golden Emblem was literally superb last season, and it flowered well into winter. The petals are larger; the flower is more shapely; the golden colour is deeper; and the fragrance is quite as intense, as are these attributes in Mrs. Wemyss Quin, and it has the same glossy, mildew-proof foliage. When Golden Emblem is sold at a moderate price it cannot fail to become popular.

Gorgeous is a Rose I have no hesitation in recommending. It is somewhat variable in colour, perhaps, but it does give you noble flowers. It is a good grower, too, and its constitution is by no means miffy. It flowers very freely, and, at its best, its colour is like its name—Gorgeous. The true colour is a deep orange-yellow, heavily flushed with a rich coppery tint. The flowers very often come a little paler, and may even be described as a shade between pale yellow and salmon-pink, but as such, nevertheless, they are still attractive. This I believe to be one of the best introductions of recent years.

#### A WELCOME CRIMSON.

Crimson Roses, especially Hybrid Teas, are welcome flowers, and a new variety in this shade of colour is always of interest. I have formed a very high opinion of W. C. Gaunt, an elegantly shaped little Rose of the greatest charm. It is of the Richmond type, but much superior in formation, and far more brilliant in colour. It is a good grower, and one certainly obtains a brilliant vermilion colour, shaded off with that dark tone of crimson-maroon which is so characteristic of some of the favourite old Hybrid Perpetuals, of that dark shade so dear to the souls of rosarians. I prefer W. C. Gaunt to National Emblem and Admiral Ward, for the reason that it has a better colour and more shapely blooms than either, and its habit of growth is almost ideal.



A WEEPING ASH.

Mrs. Dunlop Best is, without any question, a Rose worthy of inclusion in every collection, however small. The half-expanded flowers of this exquisite variety are extremely beautiful and attractive. The colour is very intense and rich, and is best described as a warm apricot of a very lovely tone. This is a fine grower, it has a good habit, flowers very freely, and is ideal for button-holes. As time goes on, Mrs. Dunlop Best will become a serious rival to the popularity of the famous Madame Ravary.

Clarice Goodacre is an aristocrat amongst Roses, if it be permissible to describe a Rose in this fashion. Let it be said that the formation of the flower is ideal; it always comes with that high-pointed, spiral centre which every connoisseur of Roses admires so much. This variety reminds one of the grand old Tea varieties in the matter of shapely blooms and in general refinement, but while it resembles them so much in this respect, it has none of the weakly constitution that is associated with them. It is a robust grower, but there is nothing coarse, withal, in either its wood or foliage. High breeding—aristocracy, in fact—is stamped all over it. The flowers are ivory-white, flushed with a very pale yellow. Sometimes it comes almost white, but, either way, it is a most charming and pleasing flower.

GEORGE M. TAYLOR, Edinburgh.

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enormous number about which nothing is known. And in all cases the reason is obscure. The common Wood Sorrel (Oxalis acetosa) may be taken as an example. It is known that the leaves close and move downwards during strong sunshine, but why? The cause is probably a chemical or electro-chemical one. For, if only red rays are allowed to reach the leaves, the plant acts as it does at night, whereas if only blue rays are admitted, it moves as it does when exposed to ordinary sunlight. That fact carries us a step farther in our investigation, and when it is coupled with another—that the rise of the leaf seems due to the presence of an increased amount of moisture—the possibility is suggested that water may be produced as the result of chemical action. But, in any case, the question remains, Does the fact just mentioned apply to plants of all kinds? This is a matter which many amateurs with gardens should find an interest in deciding. For the purpose, they would require only a few bottomless boxes, with coloured glass over them, or some such material as hollands might be used, provided that it did not exclude the light. If these were placed over flowers that close at night, it would be seen whether their movements were affected by different colours. Of course, care should be taken that no white light reached them.

MR. E. NEIGHBOUR.

**Oriental Poppies.**

June 19th.—Oriental Poppies have been magnificent this year. Though many new shades have been introduced, few of them equal the older scarlet, and some are terribly dingy. The weather has just suited the plants, and they have remained in flower longer than usual. Afterwards, they get rather shabby, and it is then often difficult to know what to do with them. One well-known authority on gardening grows Nasturtiums among them to cover them over, and perhaps that is as good a method as any. H. C. DAVIDSON.

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SOME of the old-fashioned varieties of the Strawberry possessed a much finer flavour than the modern kinds, which seem to lose in this respect what they gain in productiveness. The old British Queen is the most delicious variety in cultivation, though rather delicate; but Dr. Hogg and Queen of Denmark are both excellent.

# The Gardens of Orsett Hall, Grays.

INTERVIEW WITH MR. E. NEIGHBOUR.

ONE of the most striking features of the gardens of Orsett Hall, which I visited in the middle of May, by the courtesy of the owner, Mr. Francis H. D. C. Whitmore, J.P., is the number of choice trees. Mr. Whitmore himself, with whom I had some conversation before the head gardener, Mr. Neighbour, showed me round, takes the keenest interest in horticulture, knows the names of all the trees, shrubs, and plants, and has personally supervised the numerous improvements which have been made in the gardens during recent years. They have considerable natural advantages, being situated on quite high ground, in a pretty part of Essex, as yet unspoilt by the speculative builder. Orsett Hall itself dates from the Tudor period, but its appearance has been greatly changed by the modern architect. We commenced our round on the spacious and well-kept lawns in front, devoting attention first to the shrubs, which are also a feature.

"Does the soil suit shrubs?" I asked, as we inspected a bed only made a few years ago, which looked remarkably well.

"Yes," rejoined Mr. Neighbour, "there is no doubt that it does. The soil itself is a stiff loam, and the subsoil clay. One of the most successful is the Almond (Amygdalus communis), and Garrya elliptica is another shrub that thrives in this bed, which is bordered with Euonymus. There are several groups of shrubs, and Berberis aquifolium is used in large quantities. We have one belt entirely composed of it. Hollies and Yews, mostly trained pyramid shape, are also numerous."

**Some Notable Trees.**

"Can you tell me the girth of the magnificent Cedar of Lebanon, with its branches in apparently perfect condition, touching the ground?"

"It is twenty-three at four feet from the ground. The bottom branches of Cedars of vast proportions and great age often die; but, as you see, in this instance they are quite healthy, and the huge tree is not propped up with chains."

"Another of your fine trees is on the west side."

"You mean the Sequoia gigantea, also with its large branches brushing the ground. It is about seventy feet high, and the girth of its trunk a couple of feet from the ground is four and a half feet."

"Then there is the grand specimen of Maidenhair Fern tree?"

"The measurement of that Salisburia adiantifolia is about fifty feet in height, and the girth of the trunk eight feet at four feet from the ground."

"The Araucaria imbricata seems at home here?"

"Yes, there are branches all round, from the ground upwards. That tree is about fifty feet high. But it is quite insignificant in height, compared to the Taxodium sempervirens, which is quite seventy feet high. Other trees on the lawns which are remarkable for size and growth are a Wellingtonia gigantea, a Thuja gigantea, and a Cupressus Nootkatensis."

"You have not mentioned the mop-headed Acacia?"

"That ought certainly to be included. It has a clear stem for a height of six feet, and a spread of branches about twenty feet through."

**Sub-tropical Plants in the Dell.**

"In the Dell," continued Mr. Neighbour, "we have a sub-tropical bed, which has the advantage of protection of the shelter of large and more common kinds of trees and shrubs. The varieties include Chamærops humilis, Aralias (which have been here several years), Cordyline australis, Mimosas, Bignonias, Bambusas, Eucalyptus globulus, and Camellias. The Cordyline is quite hardy, and has stood the winter well, not being injured by twenty degrees of frost."

"I notice that you are making a bank here."

"Yes, it is to be two feet above the fence, and will consist entirely of grass. In the grass will be planted bulbs, and the bank, eight feet high, will be a pleasing sight from the Hall. We call the part of the garden close to this the Wilderness, and here we planted in the early spring a bed of Bamboos. In order to brighten it later on, I shall fill in with annuals, such as Salvias Bluebeard and patens, Nicotiana Sanderæ and affinis."

"How often do you clip your numerous Yews?"

"Only once a year, in August. We have a great many Yews in the park."

ORSETT HALL, GRAYS, ESSEX.

Then, having admired the fine row of Limes, and noted the rock garden facing them, we proceeded to the front of the Hall.

"What is the south front of the mansion covered with?" I inquired.

"Almost entirely with Ampelopsis hederacea, which colours splendidly in the autumn. Over the entrance door are climbing Roses, and on the west side of the Hall are plants of Wistaria sinensis."

SALISBURIA ADIANTIFOLIA
(The Maidenhair Fern Tree).

"You have a great show of Wallflowers in the beds under the terrace wall?"

"The variety is Blood-red, and it is edged with Myosotis Sutton's Perfection. In summer these beds will be occupied with Pelargoniums Henry Jacoby, edged by Pelargonium Little Pixie, a dwarf-growing, variegated-leaved kind, with a background of white Marguerites and Nicotiana affinis alternating. We like the latter because of its fragrance in the rooms."

"How long has the Magnolia been in flower?"

"Since the end of April. The variety is Soulangeana."

"How do you fill the borders on the west side—now occupied with Narcissi, mixed Hyacinths, and an edging of Dactylis glomerata elegantissima—in summer?"

"Heliotropes Lord Roberts and dot plants of Abutilon Thompsonii, with an edging as at present. In the corner bed Deutzia gracilis is just coming into flower, and Acacia dealbata, which has been outside for two winters, is starting into growth. The big Camellia which is just coming into bloom has been standing out for several years."

**An Effective Arrangement of Tulips.**

"You have a fine blaze of Tulips, admirably arranged for effect."

"The idea is to have four varieties represented in four beds, the shape of a diamond, with a large bed in the centre. The varieties in the single beds are Yellow Prince, Artus, Cottage Maid, and White Pigeon, the centre bed consisting of mixed varieties. These beds are in flower for three weeks, and the Tulips will be succeeded by Begonias sempervirens and Nemesia strumosa in the single beds, with Zinnias of mixed colours in the centre. The bed in the corner near the flowering shrubs is filled with Alpine Phlox, the shrubs themselves being chiefly Leycesteria formosa, Choisya ternata, Acers of sorts, Berberis Darwini, Box, Laurustinus, and Bays. The length of the bed in front is about forty yards, the border being at present entirely filled with Wallflowers Cloth of Gold, edged with Dactylis."

"How will it be filled later?"

"In the front with Pelargoniums Charles Turner, and at the back Nicotianas, Dahlias, Abutilons, and Cannas, chosen for colour and fragrance."

"You have lately formed a bed of Rhododendrons?"

"Yes, this bed is a new one. There is no peat in the soil, but plenty of leaf-mould. My opinion is that Rhododendrons only object to lime. Elsewhere there are a number growing in the native soil, which flower well, and have fine foliage."

"Are the varieties of Polyanthus in your bed named?"

"No, they are Sutton's Superb strain, chosen entirely for colour—pale yellow, golden, white with a golden eye, and purple with a golden eye. These beds in the summer will have Phlox Drummondi as a groundwork, with Palms, Nicotiana, and some other sub-tropical subjects as dot plants. The two other beds now filled, one with double Arabis, and the other with mixed Tulips, will in the summer be occupied with Ivy-leaved Pelargoniums and various sub-tropical plants. Next spring I shall substitute for mixed Tulips a scarlet variety, in order to provide a better contrast to the white."

**Herbaceous Plants and Roses.**

Proceeding to the north side of the lawns, and noticing a bed of Phormium tenax recently planted, in a sheltered spot, Mr. Neighbour pointed out a large bed, recently planted, and entirely devoted to flowering shrubs.

"They mainly consist," he said, "of Magnolia stellata, Forsythia suspensa, Hibiscus syriacus, Pyrus japonica and floribunda, Kerria japonica variegata, Weigela rosea, Amelanchier canadensis, and Spiræas in variety."

"When was your herbaceous border with the grass walk in the centre planted?"

"About three or four years ago, the principal varieties being Asters, double and single Helianthus, Tritomas, Rudbeckias, Arum crinitum, Gypsophila paniculata, Hemerocallis, Thalictrum adiantifolium, and Funkias."

"The age of the Mulberry tree on the lawn here must be very great?"

"At least between three and four hundred years. It is not only an ornament, but yields a fine crop of fruit every year. In addition to the Mulberry, there are a few Apple and Cherry trees on the lawn. We like them for the sake of the blossoms, as well as the fruit."

"What are the principal varieties on your Rose pergola?"

"Crimson Rambler, Dorothy Perkins, and Yellow Rambler. In the Rose border itself are chiefly Bessie Brown, Francisca Kruger, white Maman Cochet, Madame Hoste, Caroline Testout, Duke of Teck, Dr. Sewell, Ben Cant, and Alfred K. Williams."

**Hardy Fruit and Vegetables.**

Passing into the kitchen garden, which is directly connected with the lawns, I noticed Sweet Peas showing flower, and asked the system pursued.

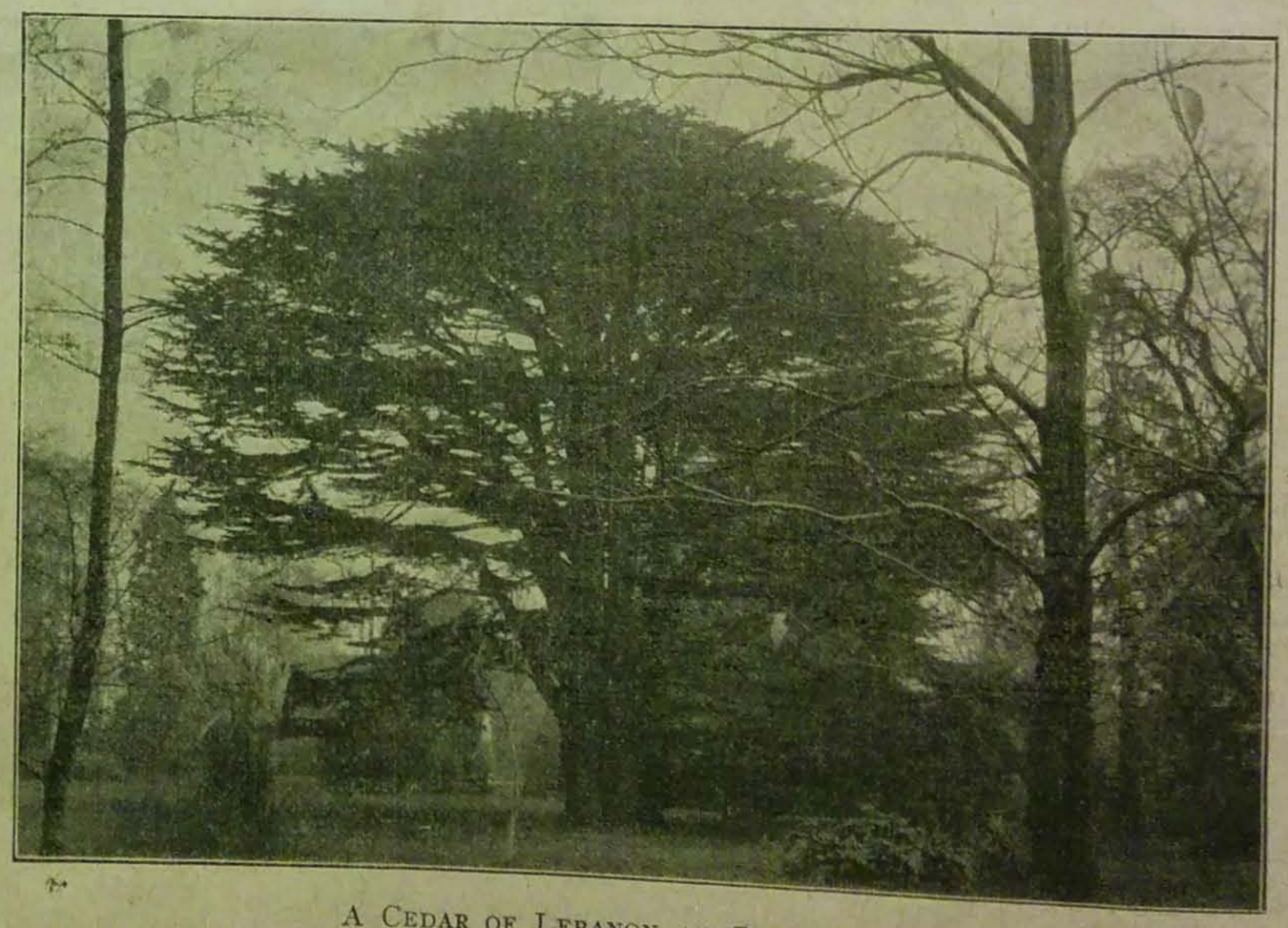
"We raise Sweet Peas in the autumn, keep them under glass in winter, and plant them out in clumps of one variety at the end of April. The varieties are Senator, Gorgeous, Othello, Painted Lady, Emily Eckford, Emily Henderson, and Butterfly."

"Most of your Apples, I see, are grown in bush form?"

"Yes, and planted in rows about ten feet apart, and at the same distance in the rows. Among the many varieties grown in this form are Ecklinville Seedling, Cox's Orange Pippin, Scarlet Nonpareil, Emperor Alexander, The Queen, King of the Pippins, Lane's Prince Albert, and Ribston Pippin. The last variety is perfectly free from canker, and produces good crops of fruit, quite free from scab, which, I think, is somewhat unusual for Ribstons."

"What are your principal wall crops?"

"Apricots, Moor Park; Plums, Coe's Golden Drop; and Greengage, old variety; Pears, Williams's Bon Chrétien, Pitmaston Duchess, Marie Louise, Beurré Diel, and Clapp's Favourite."



A CEDAR OF LEBANON AT ORSETT HALL.

"Have you anything special in the way of vegetables?"

"No, I do not think we have, the great object being to secure as many vegetables as possible. I have just planted out Celery, and find Major Clarke and Sandringham do particularly well. For ordinary use I grow Bedford Champion Onion, but I have also for large specimens a few Ailsa Craig. Under a south wall, early Peas (Gradus) are grown, and we started picking spring Spinach to-day."

The kitchen garden has lately been extended,

and here more breadths of vegetables are grown. Here, too, are the Strawberries and Raspberries, the varieties of the former being British Queen and Royal Sovereign, and the latter Superlative. Entering the Vinery, with its back wall covered with Ficus repens, I noticed promising crops of Black Hamburgh and Muscat of Alexandria.

"We renovated the border last year," said Mr. Neighbour, "and there has been a great improvement since. For early work I prefer an inside border, because it is more under command, but, as we do not try to get any Grapes before August, the outside border suffices."

**Starting Peaches.**

"When do you start Peaches?"

"Not until the first week in February, because a great number of bedding plants have to be wintered in the Peach house, and while they are here a low temperature and free ventilation are needed. As soon as we commence Peaches, the house is closed, the syringe used three times a day, and a temperature of forty-five degrees at night, with a rise of five to ten degrees during the day, is maintained. No ventilation is given until the bloom begins to expand, and then only a little at the top of the house. When the blooms are fully out, a little ventilation is also given during bright days at the front of the house. Syringing then ceases, and the dry atmosphere which is so necessary at this period to ensure a good set is obtained. I find that if the blooms are brushed lightly over with a rabbit's tail at midday for a few days, there is no difficulty in getting a good crop of fruit set—in fact, a considerable amount of thinning is essential. After the fruit is set, the syringe is again used freely, twice a day, care being taken to get at the underside of the leaves. I believe in plenty of syringing and damping of floors for Peaches until the fruit shows signs of colouring, when, of course, a dry atmosphere and abundant ventilation are required, to ensure a well-coloured and well-ripened fruit."

"One of your Peach trees must be very old?"

"It is nearly thirty years old, and the variety is Barrington. Last year we had four hundred good fruits off this tree. All I do to it is to take off in January about two inches of old soil, and give it a dressing of fresh loam from an old pasture. The trees on the walls are about four years old, and the varieties are Dymond Peach and Nectarine Lord Napier."

**Box-grown Tomatoes.**

"Then, you have Tomatoes in boxes on the stage?"

"Perhaps, as Tomatoes are grown very successfully here, you would like to know something of the method employed. I raise seedlings in January, and grow them on in the usual way, until they are about six inches high, in 3-in. pots. They are then put into butter boxes, fifteen inches square, well drained, with only just enough soil to cover the ball of the roots. The soil used is much the same as that for the Peach tree, with enough old mortar broken up fine to make it porous. No manure is used until the first fruits are set and seem to be swelling; then a top-dressing, about an inch thick, of loam, mortar, and a little decayed manure is given at intervals of about a fortnight, until the top of the box is reached. Care is always taken to ram the soil in very firmly. Clear water only is used for watering until the second bunch of fruit is swelling, and then weak manure is administered frequently. All sideshoots are picked out as soon as they appear, but the leader is allowed to go unchecked. Last year, I had plants twelve feet high, which produced a fine crop of fruit, the top bunch being nearly as fine as the bottom one. The variety is Sutton's Ai. I think firm potting, plenty of air, and plenty of clear liquid manure are the three main points to be considered in Tomato culture."

"What are your principal stove plants?"

"Hoya carnosa, Stephanotis floribunda, Achimenes, Gloxinias, various Ferns, Dieffenbachia Fourneri, Pandanus Veitchii, Caladiums, Allamanda Hendersonii, Acalypha macrophylla, and Palms. In the centre of the plant house in a bed are Oleanders, Ficus elastica, Jasminum gracile, and Palms. The creepers planted under the stage and trained up the rafters are Rhyncospermum jasminioides, Hardenbergia Comptoniana, and Abutilons. The latter, which form an arch, were only planted last year."

"What plants do you grow in pots?"

"Begonias (single and double), hybrid Calceolarias, Metrocideros floribunda, Browallias, and several varieties of Zonal Pelargoniums, including King of Denmark, Queen of Whites, Gloire de Lyonnaise, and Freak of Nature. The last-named is a striking novelty, and has been in bloom practically all the winter."

"You have not mentioned Chrysanthemums?"

"We grow a number in pots for specimen blooms, the principal varieties including General Hutton, Lord Ludlow, Mrs. F. M. Pockett, Mrs. T. Carrington, Miss A. Byron, George Carpenter, and W. R. Church. Several other varieties of Decoratives, Singles, Thread-petals, etc., include Reine des Roses, Paris Daisy, Belle, King of Plumes, Silver Star, Miss E. M. Morris, and Flambeaux."

"How long have you been head gardener here?"

"Nearly two years. As the son of a gardener, I had a very early insight into gardening matters, and spent some time under my father. I then went into the gardens of Temple House, Berkshire, for a year, as improver, and spent the next ten years in various good gardens, with the view of obtaining general knowledge of the work. I was also for a year in Whiteley's Nurseries at Hillingdon, where I saw something of the commercial side. Before I came to Orsett Hall, I was for seven years head gardener at Kettrick, Woking."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 307.—CUT FLOWERS FOR THE YEAR.

DEAR KATE,—Have you plenty of flowers for cutting in your garden? It is not every plant which can be used in this way, and I think we should do well to consider what to grow for this purpose, for no home is complete or well furnished without flowers. I wrote in the winter of the great value of three harmonious flowers to supply us with bouquets throughout that time—*i.e.*, Christmas Roses, winter-flowering Jasmine (Jasminum nudiflorum), and the Algerian Iris stylosa syn. unguicularis. With plenty of these (also Violets, Snowdrops, and other early bulbs) we shall always have flowers, and the next set of fine cut flowers to arrive are the Daffodils.

A DELIGHTFUL MIXED BORDER.

There is a good deal of confusion in the minds of some of us as to the difference between Narcissi and Daffodils. I am often asked to explain it, but, of course, I cannot do so, because there is no real difference. Narcissus is

of nutriment diminishes. Probably the first beginnings of flowers were coloured bracts, such as may be seen in the Poinsettia. The colour was necessary, of course, in order to attract insects. That they are thus attracted anyone may test for himself, by hanging up in a room pieces of differently-coloured paper. The greatest number of flies will be found to go to those that are the brightest.

July 29th.—Last year I had a few dozen damaged Hyacinths, and, knowing that a common

Mr. William Neild, F.R.H.S.

method of propagation is by means of mutilation, I planted them, in order to watch the result. Each of them has produced a large number of bulbils. A bulb is, in reality, a thickened underground stem, and the flakes of which, in the case of the Hyacinth, it is chiefly composed, are merely thickened leaves. Naturally, in the axil of each there is a bud; though, unless some accidental circumstance has caused it to swell, it is so small that it would not be noticed. When the natural growth of the bulb—the main stem—is prevented by mutilation, the energy of the plant is diverted to these axillary buds, which are consequently started into growth. That is the explanation of this method of propagation. If, however, the base of the bulb is mutilated, the explanation, as was recently pointed out by Mons. S. Mottet in the "Revue Horticole," is different, in that the axillary buds are destroyed, and the bulbils are produced by the leaves in precisely the same way as they are in the propagation of Gloxinias and other gesneraceous plants by means of leaf-cuttings.

July 30th.—Few people have any idea how far inland sa't spray may be carried by the wind. The Rev. W. Wilks, secretary of the Royal Horticultural Society, and Vicar of Shirley, stated at a meeting of the Scientific Committee that in his own garden, nearly forty miles from the sea, he had had a young Plum tree killed by the spray after a violent gale from the south-west in early spring. "The incrustation of salt not only could be distinctly tasted, but it could be plainly seen as white crystals on the surface of the leaves." Other instances of a similar nature were mentioned, the distances varying from thirty to fifty miles. I have often been laughed at for declaring that I could smell the sea at a distance of thirty or forty miles when the wind was blowing from that direction, yet apparently it has the power even to kill trees.

H. C. Davidson.

# Famous Gardeners at Home.

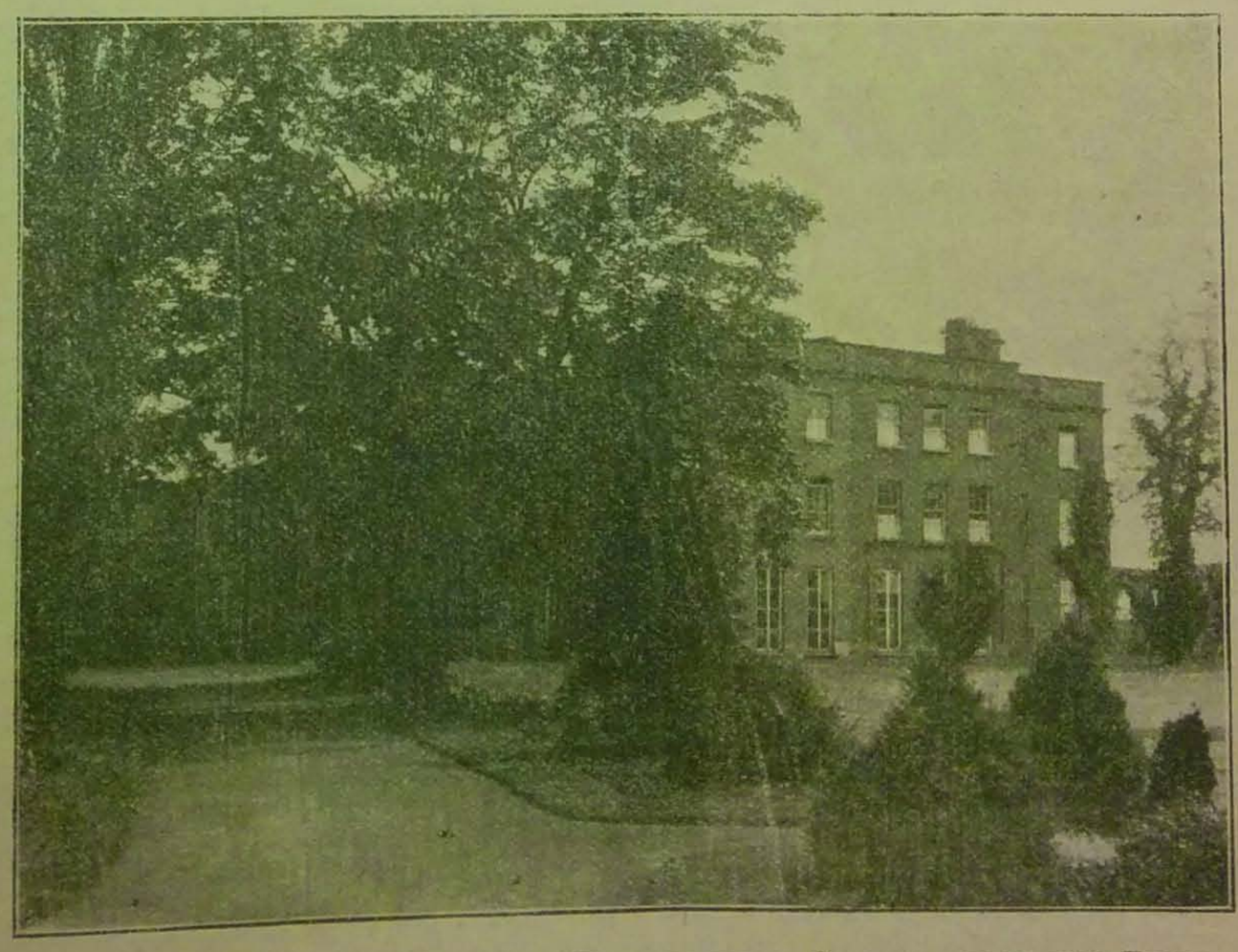
No. 148.—Mr. W. NEILD, F.R.H.S., at the CHESHIRE HORTICULTURAL COLLEGE, HOLMES CHAPEL.

BY the courtesy of Mr. T. J. Young, the principal, and Mr. W. Neild, the lecturer and instructor in horticulture, I had the opportunity towards the end of June of paying a visit to the Agricultural and Horticultural College at Holmes Chapel, which is carried on under the auspices of the Cheshire County Council, and is generally acknowledged to be the best in England. The village of Holmes Chapel is only twelve miles from Crewe, but the pleasant country adjacent is in striking contrast to the smoky and uninviting aspect of the great railway centre. The situation of the College itself, about a mile distant from the station, is admirable, and the commodious building is approached by a charming carriage-drive adorned by stately old trees. During my all too short stay I had a chat with Mr. Young, who only this year relinquished the post of vice-principal at Wye College in order to undertake that of principal at Holmes Chapel. He is, above all things, an agriculturist, but he naturally takes the keenest interest in all departments of the College, and he accompanied Mr. Neild and myself during a portion of our inspection of the gardens.

Mr. Neild himself is, of course, a practical horticulturist of wide experience, which he has turned to such admirable account in his present position that the gardens under his charge are absolutely self-supporting.

In expressing surprise at this achievement, I asked Mr. Neild to tell me the history of the undertaking.

"The College," he said, "was the first of its kind, and in starting it nine years ago we had no example before us to show us what mistakes to avoid. The County Council award scholarships to the sons of persons, and others, in the county whose income does not exceed £300 a year."



The Cheshire Agricultural and Horticultural College, from the Drive.

"What about ways and means?"

"The sinews of war come out of the whisky duty. The Council had the option of using some £14,000 to £15,000 a year for reducing the local rates, or for educational purposes, and they selected the latter. This sum is spent all over Cheshire, but a certain proportion was set aside for this College, with its two departments of agriculture and horticulture. The farm attached to the College is a hundred and sixty acres in extent, and the school is capable of accommodating sixty students, with the requisite staff. Although the first consideration is always educational, we also want to show our students how to make two ends meet. I contend that a garden ought to pay for what is spent upon it, and by buying in the cheapest market I have made the department a financial success."

"You prove this by figures?"

"Certainly. Everything that is bought for the gardens is charged, and everything taken out of them for use is placed, as it should be, to their credit. The produce not consumed is sold in the open market, and, because it is of the best quality, we get good prices."

"How many students are engaged in the gardens?"

"Thirteen. There are forty students in the College, and the whole of them are required to attend the lectures, take notes, and sit for examination. The horticultural students are prepared either for market gardening, or to undertake posts in private gardens. One of our late students is now head gardener at an important establishment, and others are doing well. We put up eighteen students for the examination of the Royal Horticultural Society this year, and they all got through, an agricultural student being at the top. The agricultural students are required to take up horticulture."

"What is the period of the course?"

"Three years. A scholarship is granted for one year, and is renewable for a second and third year. The minimum age is 15. The examination is at particular centres in the county; the papers are sent to different examiners; and the scholarships are granted according to their reports. All the students receive elementary, theoretical, and practical instruction."

"I will not trouble you for details about the general instruction, but I should like to know what you teach the students."

"I lecture to them on Botany and Horticulture, and, as soon as the lectures are finished, they go into the gardens for practical work. With respect to the practical work, they begin the first year at the bottom; the second year they do a better class of work; and in the third year I try to give them such work as will specially fit them for any post they propose to go in for. I may say here that, if a student is very promising, we can put him forward for a fourth year. There is one now leaving who has been here for four years. The boys are not, you understand, made labourers. Men are sent with them in the gardens, as well as on the farm, to do the heavy work; and while we teach them to use implements, this is done that they may be able to instruct others."

"You know the value of being able to instruct others?"

"It is indispensable to success. I can speak from personal experience. For nearly twenty years I had charge of the gardens at Wythenshawe, one of the first places in the county."

"Did you leave Wythenshawe to come to Holmes Chapel?"

"No, in order to take up lecturing work for the Cheshire County Council. Before I was finally appointed lecturer, I gave some peripatetic lectures in various parts of the county. Subsequently, I was lecturer for the winters of 1893 and 1894. Then, in 1895, when this College was founded, I came here as lecturer and as manager of the gardens."

"From which I conclude that you planned the gardens?"

"Yes, and everything connected with them. The gardens have been increased from four to seven acres in extent, and there are nine houses. We put up seven at first, good, plain, substantial houses; and afterwards we added two of a cheaper kind, because the market gardeners said that the good results we obtained were due to the superior character of the houses. They found, however, that the results from the cheaper houses were just as good as those of the more expensive."

"Who put up the houses?"

"The whole of the horticultural work was done by Messrs. David Lowe and Sons, of Edinburgh and Manchester. I think it was greatly to their credit that everything was finished to time; that not a single penny was charged for extras; and that we have not had to spend a single penny since on repairs or alterations."

"Then you have made no changes?"

"None at all. The houses were fitted on up-to-date lines at the outset. The whole of them are heated with one boiler, and we can work any one house independently of its own neighbour. There are two Vineries, a Peach house, a Tomato house, a Cucumber house, a Melon house, a stove, a plant house, and a Chrysanthemum house, all span-roofed. They were built with the view of making additions."

"Speaking of the Vineries," continued Mr. Neild, "we show Grapes, and have taken first prizes at Shrewsbury with Muscats grown on a Vine sixteen months old from the bud. This was a unique thing at the time, but we have done it again on several occasions. The difficulty is the colour. Our principle in the houses is to always have something ready to take the place of the crop which is over, and so to teach the financial value of perpetual crops. We only show fruit, but we have taken prizes at Liverpool as well as at Shrewsbury."

"I suppose that you make a great many experiments with regard to crops?"

"Both manurial and otherwise. For instance, we are planting an acre of fruit trees. I propose trenching a portion of it; a portion will be dug in the ordinary manner, and a portion put down to grass. It is customary in Cheshire to have a narrow strip, three feet wide, taken out alongside the trees. This will be done; but the grass will, in other experiments, be run right up to the bowl. The whole of the ground will be planted with one variety, so that we may see the effect of the treatment in each case."

"In your manurial experiments do you use patent manures?"

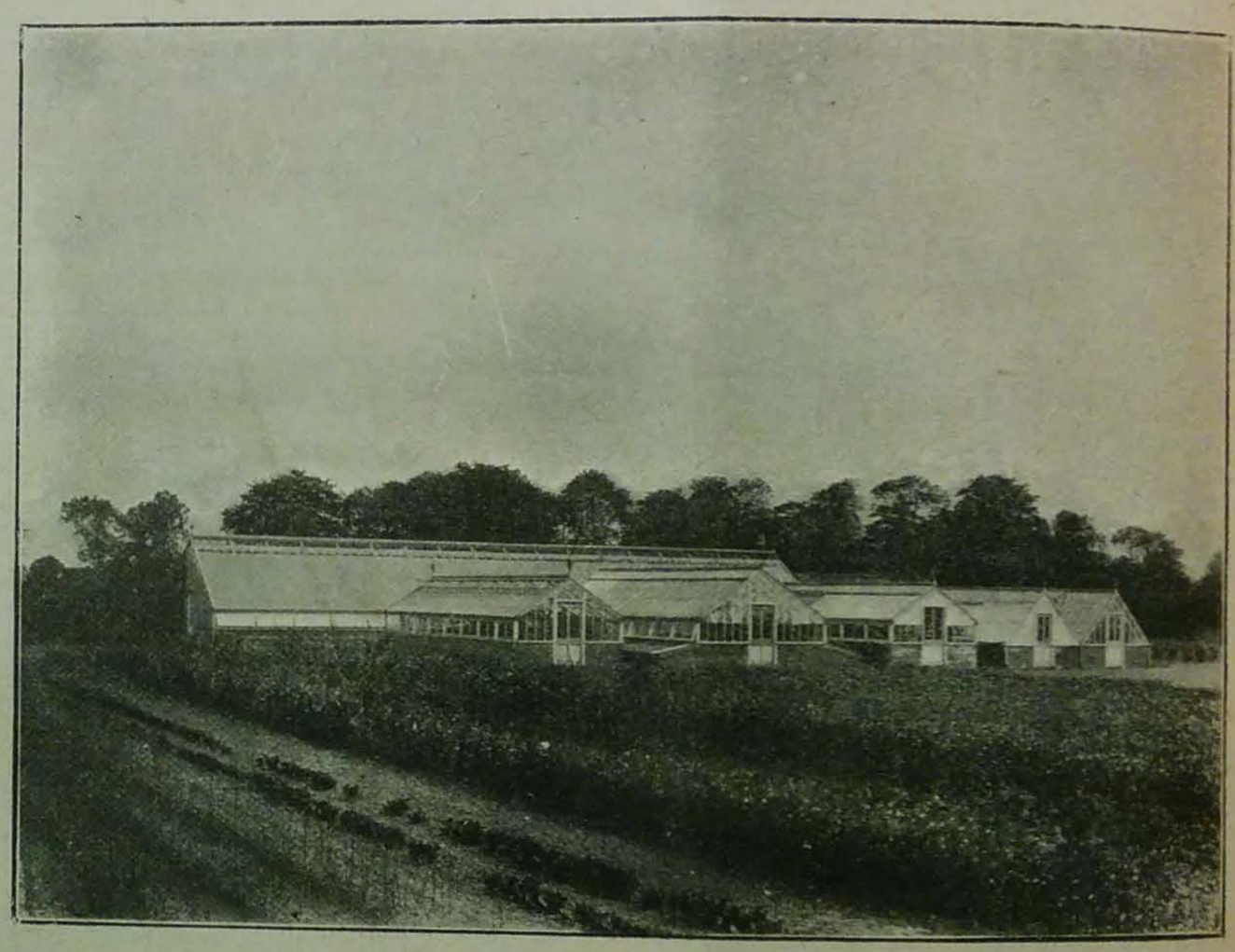
"No, we use the artificial manures, which we buy in quantity. The students are taught to recognise the different manures, and to appraise their respective worth."

"Is the soil heavy?"

"There is some of it heavy clay, but the bulk is heavy loam resting on a clay subsoil. It is difficult to work. Going back to the manure question, I may mention that in my lectures to the students I deal with the various pests to which the plants are subjected, and the food which certain plants require; and then I indicate the particular variety of manure to apply to them in order to accelerate their growth."

Hitherto we had been talking in Mr. Neild's house, but at this stage we commenced our round of the gardens, Mr. Neild explaining that all sorts of crops are grown without consideration of money value, whether the soil is suitable or not. If it is not suitable, efforts are made to render it so. The College garden is divided into quarters, and in the first were Strawberries.

"What varieties do you grow?" I asked.



The Glass Houses at the Cheshire Horticultural College.

"We used to grow between forty and fifty, but we have discarded all but Vicomtesse Hericart de Thury, Sir Harry, Dr. Hogg, Leader, Monarch, Laxton's Fillbasket, Royal Sovereign. The Laxton, and Aberdeen Favourite. We are trying a spring planting of Strawberries. Apparently, they do as well as when they are planted in autumn. The crops are very heavy."

"I see that you have a number of Pears growing on the west wall."

"The wall, about a hundred and fifty yards long, was built by the County Council for experiments in fruit growing, and it is devoted to Pears. One half of them are on single cordons, and the others are trained horizontally. Until last year the cordon trees never failed to bear a big crop. This year the crop is fair; but, as you notice, the horizontally-trained trees have no fruit. This shows the advantage of the cordon system. It is better both for private and for market growers. You get your walls clothed at once, and save space."

"And the varieties?"

"Marie Louise d'Uccle, Williams's Bon Chretien, Emile d'Heyst, Louise Bonne of Jersey, Doyenné Boussoch, Pitmaston Duchess, Magnate, and Doyenné du Comice."

"What do you grow on the south wall?"

"Dessert Cherries, Peaches, Nectarines, Apricots. The Pears grown on the free stock include Fertility, Beurré d'Amanlis, and Beurré Diel, as well as the varieties we grow on the wall. Of Apples, Stirling Castle, Lane's Prince Albert, Winter Hawthornden, Cellini, Lord Grosvenor, and Bismarck are the leading kinds. I am a great believer in Bismarck, and shall plant out a quantity of trees this season."

"Black Currants seem to be a great feature."

"We grow thousands for sale every year. The varieties are Black Naples and Black Grape. This is the only public place where the Black Currant mite does not intrude, and, in consequence, we have been advised to grow only Black Currants. Of course, that would not do; but ours are certainly exceptionally healthy, and we have a large quantity of cuttings that will be fit for sale in a couple of years. We grow Whinham's Industry, which I think is the best of the Gooseberries. Our crop this year is very fine. In October we are going to plant a new orchard on the ground where you now see a quantity of Cabbages."

"Do you find Cabbages profitable?"

"If they can be grown early enough they are one of the most profitable of crops. An acre of Cabbages at sixpence per dozen will realise £50, with a fair margin over for failures. I have sold plants grown on this ground at 1s. 3d. and 1s. 6d. per dozen."

"You have the Cut-leaf Raspberry?"

"Yes, it thrives here. I think that it ought to be more generally grown. When once it is established there is no further trouble with it. In fact, it grows like a weed."

"I notice that you seem to have Peas growing in all directions."

"It is our plan to dot them all over the place, because the crops are better than when they grow together. Each year we try a new variety of Pea."

"You make a practice, I imagine, of trying new varieties?"

"Yes, and if a new variety is a success we keep on with it. We not only buy new varieties, but we are always pleased to try anything that the seedsmen care to send us. For example, we grow Mangolds, Peas, Lettuce, and Turnips from seeds sent by Messrs. Dickson and Robinson, of Manchester. Then we also try new methods. We are departing from the orthodox mode of growing Scarlet Runners. It is all very well for

the owners of private gardens to grow them with stakes, but the market gardeners cannot afford stakes, so we are growing them without to show that the stakes are not essential."

"Is Seakale one of your big crops?"

"We have about four thousand plants, and I believe that it does as well here as in any part of the county. We do not force it, but sell the crowns. The root-cuttings are planted in March, and in October the plants are such a mass that no soil is to be seen."

"Then the crop is one that pays well?"

"Yes, and one of our great objects is to see whether a crop will pay, and thus help the market growers. I was anxious to see if it would pay to grow a large quantity of Narcissi for the market, so I made the experiment, and found that it did. Just now, again, we are growing a great number of Shirley Poppies for the purpose of testing the heredity of certain markings."

"Have you raised any seedlings yourself?"

"I have some seedling Potatoes of my own raising. They were raised in 1902. There are several crosses, and one point in view is to confirm, or to controvert, my idea as to the parentage of certain plants which are put before the public."

"May I inquire what that idea is?"

"I think that the majority of the new varieties have been got by chance, rather than by design; and my impression is that I shall secure as good a stock out of the self-fertilised plants as out of the crosses."

As we passed into the houses, I saw a number of Chrysanthemums, and Mr. Neild said, "We grow about five hundred each year, a portion of large blooms, and the bulk in the bush varieties for cutting purposes."

"Do the students work in the houses at the beginning of their course?"

"No, they know really what is taking place in the garden, but they only assist in doing it. After they have been at work out of doors for some time they are brought into the houses. Since Mr. Young came, he has instituted a diary which every student has to keep, of the work done during the day. I look over the diaries and return them, and thus there is a record of the garden work done all the year round."

"Are Cucumbers and Tomatoes grown in quantity?"

"A fair number, but only the two ordinary market kinds. I save my own Cucumber seed. The scarlet-fleshed Melon only is grown. When Cucumbers and Tomatoes are over, we fill the houses with Eucharis and other plants."

"What do you grow in the plant house?"

"A miscellaneous collection of plants, which we dispose of to any one who wishes to buy, the same as cut flowers, fruit, or vegetables. We propagate thousands of plants, and raise thousands of Ferns. I do not object to sell the entire contents of a house if a satisfactory price is offered."

"You appear to have a singularly effective scarecrow?"

"It is an upright with a movable arm, which turns with the wind. There is a fan, and when the wind gets up it works the fan and causes the hammers to revolve and strike a bucket. The noise is frightful; you can hear it a quarter of a mile away; but the scarecrow answers the purpose well, and the cost is a mere trifle."

"Do you have a flower show at Holmes' Chapel?"

"We started one seven years ago. The first year we offered £40 in prizes, and last year £120. I am just retiring from the post of honorary secretary, with a balance of £100 in the bank. So that the College may be said to stimulate the floral interest in horticulture in addition to serving the purpose for which it was founded."

"If you were asked in which direction your own strength specially lay, what should you reply?"

"Fruit has, I think, been my strongest point always. Some time ago I was awarded, at Manchester, a silver medal for fruit cultivation."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 105.—COOL CORNERS, AND LILIES.

DEAR KATE,—During the late hot weather we have been living at the end of the lawn, where there is always shade and a cool breeze. You know my idea of a residence consists of a garden and a house; and the latter is never inhabited by us except for meals, and at night, in summer. Houses without gardens must be horribly stuffy just now, and, if I had the making of the laws, no house should be put up without enough garden for the children to play in (at the very least), as I am sure this is a "first necessity" for their health as well as their manners; as, otherwise, they must play in the gutters.

But to return to the lawn. Long chairs, light tables, and even rugs, in the shade, make it a delightful retreat, and there is always something bright in the borders which fill each corner. They are edged with Violas, in broad masses of rich colour, which bloom throughout the summer. Lately the poor plants would have been very miserable, though, for want of water, if we had not mulched them just before the drought began, after giving them a thorough soaking of water; but, as it is, they have gone on quite happily with their blooming.

AT THE END OF THE LAWN.

In the early spring, the lovely hybrid Rhododendrons and Azaleas (Mollis) make these borders conspicuous, and as the flowers fade, the tall spikes of the Foxgloves (in white and delicate pink, spotted with crimson) rear their heads, some of them being over seven feet in height. Blue Delphiniums then take their place, and now the Lilies which grow between the shrubs are opening—Lilium speciosum rubrum, in brilliant pink; L. Henryi, a tall spike with many rich apricot blossoms; L. auratum, and its varieties platyphyllum and rubro-vittatum; Tiger Lilies, Madonna Lilies, and many others all grow happily in the half-shaded borders here.

This is the best time of year in which to plant Lilium candidum (the Madonna Lily), for it makes leaf-growth directly after its flowers, and does not like to be disturbed in October, when other Liliums should be put in. If you are getting the bulbs of the Madonna Lily, be sure to have them intact, and see that the bulbs have their roots on, and are firm and sound, for there is a fungoid disease which attacks these plants, which is the consequence of the stupid way in which the Lily-growers treat their bulbs, cutting out their little roots, I suppose, to save the weight of them in the post. Last year I bought a bulb of the hybrid Lily (Lilium testaceum), which is half a Madonna Lily and half a yellow Japanese Lily, and has pale buff flowers. It is now in bloom, but the flowers are small and miserable, as the wretched bulb had no roots when it reached me, and will, no doubt, take at least a year to recover, for the lower roots of a Lily should never be injured, or, indeed, allowed to get very dry. Why will not some Lily-grower undertake to supply these bulbs intact? Until this is done, Lilies will not do much in our gardens, for they are sadly apt to disappear from their weakened state after one poor flowering season. I believe we ought to rear our own Lilies, either from seed or bulblets, for those I have grown in this way are far stronger than any I can buy without their lower roots. Even the Nilgiri Lily, rare and delicate as it is, blossoms grandly with us every year, being grown entirely under glass, and in pots. Tiny bulblets which appear at the side of the older bulbs soon grow to flowering size, if well treated; and we grow our own Harrisi Lilies in the same way. This year we had fourteen blossoms on one of these, a splendid sight, and there is really no difficulty in cultivating Liliums from year to year if we give them as much care after flowering as before. That terribly mistaken idea of "drying off" bulbs is too often their death-blow at the hands of a gardener who gives them no water after blossoming, and so kills off the foliage on the stem long before its functions are properly carried out, for no bulb can form its flowers for next season (as should be the case during the rest after flowering) without its leaves, which are to the plant what our lungs are to us, as it inhales the air through its foliage. Of course, bulbs don't want a full supply of water at that time, as they are not making visible growth; but the point to remember is that they must not be allowed to droop, but be given plenty of sunshine, and enough moisture to gradually ripen their leaves whilst they form their blooms for next season in the centre of the bulbs. Repotting, or planting in the border, is best done after that time, when the bulb is really almost dormant, but even then

Oxford Dictionary of National Biography

**Nelson, David** (*d.* 1789), *gardener and plant collector*
by D. J. Mabberley
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**Nelson, David** (*d.* 1789), gardener and plant collector, of unknown background, was brought to the attention of Sir Joseph Banks by James Lee of the Vineyard Nursery, Hammersmith, in April 1776. Banks had him appointed plant collector on the *Discovery*, captained by Charles Clerke, for James Cook's third voyage to the Pacific; his annual salary was £35 and he had only three months' training before the expedition.

The *Discovery* touched at Cape Town, Kerguelen Island, Van Diemen's Land, New Zealand, Tonga, Tahiti, and other islands in the Pacific including Hawaii (until then undiscovered by Europeans), then Kamchatka and Macau, returning to England on 6 October 1780. Nelson collected herbarium material and seeds at every opportunity: his collection of *Eucalyptus obliqua*, made in Van Diemen's Land in January 1777, was the material on which the genus was based; he collected at least 136 species on the island of Hawaii during a four-day attempted ascent of Mauna Loa. He also introduced *Rosa rugosa*, from Kamchatka. Banks later sent 200 packets of Nelson's seed collections to J. A. Murray at Göttingen, where Chinese sumac (*Rhus chinensis*), collected in Macau, was raised. Nelson had also collected insects, to be described by J. C. Fabricius in 1787, and acquired a grasp of Pacific languages.

Nelson seems then to have been employed at what was to become the Royal Botanic Gardens, Kew, but, in November 1783, Banks arranged that he go on HMS *Swift* to west Africa. However, the ship was recalled when it reached Plymouth in March 1784. Three years later, in March 1787, Nelson was appointed botanist (with William Brown from Kew as assistant) on William Bligh's voyage to bring the breadfruit from the Pacific to the British West Indies. In May, Banks and Nelson, together with the assistant surveyor of the Navy Board at Wapping, selected and modified the *Bethia*, which became HMS *Bounty*: Nelson's salary was £50 with a £25 kit allowance and free messing. The expedition left Spithead on 23 December 1787, with 800 clay pots for the trees and room for the water they would need, and reached Tahiti on 26 October 1788. Nelson botanized on the way and supervised the planting of fruit trees in Van Diemen's Land, where he collected some seventy new or interesting plant species. The *Bounty* left Tahiti on 4 April 1789 with 1005 breadfruit plants as well as ornamental plants and supplies but, on 30 April, the crew, including Brown (who was later murdered on Pitcairn Island), mutinied and soon threw the breadfruit plants into the sea: Bligh and his followers, including Nelson, who was his confidant, were cast off in an open cutter. Nelson was taken ill at sea, but when they touched the Australian coast his knowledge allowed them to gather edible plants, including fern-roots. Bligh navigated to Kupang, Timor, which was reached on 15 June. Bligh successfully sought permission from the Dutch authorities for Nelson to botanize on Timor but Nelson then contracted an ‘inflammatory fever’ and died at Kupang on 20 July 1789. He was buried next day behind the chapel in a grave later occupied by the French gardener, Anselme Riedlé (*d.* 1801), and the German gardener, Alexander Zip[p]elius (*d.* 1828).

Nelson's fortitude during the mutiny and its aftermath was praised by Bligh; Clerke wrote of him as ‘one of the quietest fellows in Nature’ (St John). Bligh named ‘Nelson's Hill’ (possibly the hill subsequently named Mount Mangano, South Bruny, Tasmania) after him as he had been the first European to climb it. His herbarium collections are preserved at the Natural History Museum, London and a number of plants, especially from Hawaii, were named after him; Robert Brown proposed at first to give the generic name *Nelsonia* to a group of Australian tree-ferns but eventually settled on an enigmatic Acanthacea.

D. J. MABBERLEY

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**Archives** NHM

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D. J. Mabberley, ‘Nelson, David (*d.* 1789)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2010 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/59322, accessed 28 Nov 2014]

David Nelson (*d.* 1789): doi:10.1093/ref:odnb/59322

suspected bush will be hurried to destruction, and there will be no possibility of applying any test afterwards. The further requirements are—that the ground where the bushes have been grown should be sprayed with a solution of sulphate of copper (at least a pound of the sulphate to a gallon of water); that all bushes on the infected area should be sprayed with an approved fungicide; and that no bush, or part

MR. GEORGE NELSON.

of a bush, Gooseberry or Currant, should be removed from that area to any other. This is certainly a step in the right direction. But why should it be confined to the Gooseberry-mildew? Why should not a determined effort be made to stamp out many other fungoid diseases which do damage to the amount of many thousands of pounds annually? Why should one man be allowed to grow Thistles and Nettles to seed over the properties of his neighbours round about, and enormously increase their labour bills? There is plenty for an energetic county council to do.

**A Nature Note.**

November 7th.—It is a well-known fact that the spores of parasitic fungi cannot penetrate healthy bark. They can enter a tree only by means of a wound. This is one of the dangers of pruning. The danger may be minimised by doing the pruning in summer, when the wood is young and capable of healing quickly. When it has to be delayed until autumn, a dressing of tar should be applied, especially in the case of the removal of large branches. It may be objected that at this season Nature herself, by depriving deciduous trees of their leaves, inflicts on them innumerable wounds, and that they never seem to be a penny the worse. But Nature takes her own precautions. Long before a leaf actually drops, a double layer of loose cells begins to form at the base of the petiole, and, gradually extending and thickening, cuts off all communication between the leaf and the tree, except through a tiny central channel. Even that is closed before the leaf falls, and when the actual separation takes place the wound is found to be protected by a corky layer, impervious to fungoid growths. The separation may be caused prematurely by drought, or more naturally by wind or by frost. In the last case, the moisture which is sure to have penetrated between the double layer of cells, when it thaws, expands, thus forcing apart the two layers, and bringing down the leaf. This is why, after a sharp frost at night, the leaves fall in showers, notably in the case of such trees as the Mulberry and the Walnut, and the showers are all the heavier if the following morning is warm and sunny, for the thaw is then quicker and more effective. I have often seen trees under such conditions lose the whole of their foliage in a single night. One practical lesson which we may learn is this—that if we are unfortunate enough to get any of our greenhouse plants frozen, our only chance of helping them is to thaw them as slowly as possible, and, therefore, to shade them from sunshine. For this reason, syringing them with cold water is often recommended.

H. C. DAVIDSON.

# Viscount Newport's Gardens at Castle Bromwich Hall.

INTERVIEW WITH MR. GEORGE NELSON.

IT was early in September when I had the opportunity, thanks to the courtesy of Viscount Newport, of visiting the garden attached to one of the most perfect specimens of an Elizabethan mansion which can be found in the United Kingdom. Castle Bromwich Hall, though scarcely five miles from Birmingham, might have been a thousand miles distant, so completely is it in the heart of the country. Standing on a level of three hundred and sixty-three feet above the sea, and approached from the station by a steep ascent, its south front, which as the main entrance, is strictly in keeping with the style of the mansion. In fact, as I remarked to Mr. George Nelson, the head gardener, soon after my arrival, and when I was able to appreciate the remarkable beauty of the exterior of the house, of which the porch, gables, and windows are prominent attractions, there is a singular preservation of harmony in all the surroundings.

"With regard to the south front," said Mr. Nelson, "you may like to mention that two lions guard it, and that there is a sundial in the centre of the grass, but there is not much in the way of gardening. The border right along the side contains double blue Lobelias (Catherine Mallard), which have done well in spite of the wet season, and Geraniums; while on the house itself are several creepers, including Ampelopsis Veitchi, Magnolia grandiflora, Clematis montana, Banksian Roses (yellow and white), Pyracantha Lælandi, Cotoneaster Simonsii, scented Verbenas, Jasminum grandiflorum, Escallonia macrantha, and Punica granatum. On the walls in the carriage drive are Wistaria sinensis, Banksian Roses, the English Blackberry (cultivated), Jasminum, and Coronilla emerus, with Arbutus unedo in one corner. But now we had better proceed to the flower garden, or the first of the ten portions into which the gardens are divided."

"How are the divisions made?"

"As you will see, by hedges of Yew, Holly, Box, Privet, and Hornbeam, the whole being almost completely surrounded by red brick walls, which, in their turn, are covered by flowering creepers of many kinds."

**Interesting Features.**

"I observe that the west front door of the house opens into the garden through a Grape Vine."

"Yes, and that Vine is always kept cut in the form of a cross. It is, I believe, as old as the mansion to which it clings. Here you may like to refer to the fact that the twelve large latticed windows, with stone mullions, represent the twelve Apostles, and the four gables the four Evangelists. As to the flower garden, it has all been relaid since I came here, two years ago, when Lord Newport took up his residence."

"The Ivy arches, of course, have been a feature for a long time?"

"For a great many years. There are four of them, six yards under. The variety is

*Photo by*] THE FLOWER GARDEN AT CASTLE BROMWICH HALL. [*J. W. Unitt.*

Hedera dentata; it is a very strong grower, and always looks the same in winter as in summer. Then there are four Rose arches, the varieties used being Williams' Evergreen, Flora, and Felicité Perpetué (white and pink). The four sets of formal beds, with a large stone vase in the centre, include four beds of reds—Hybrid Perpetuals, Teas and Hybrid Teas. Lady Newport is particularly fond of Roses."

**The Favourite Roses.**

"Which are the favourite varieties?"

"The Hybrid Perpetuals include Alfred Colomb, Clio, Duke of Teck, Frau Karl Druschki, General Jacqueminot, Helen Keller, John Stuart Mill, Horace Vernet, Mdlle. Eugenie Verdier, Madame Victor Verdier, Mrs. John Laing, Marchioness of Dufferin, Margaret Dickson, Marie Baumann, Paul Néron, Prince Arthur (one of the sweetest), Prince Camille de Rohan, Ulrich Brunner, Victor Hugo, Merveille de Lyon, Charles Lamb, Jean Chespin, Lady Helen Stewart, Duke of Wellington, and Marchioness of Devonshire. Amongst the favourite Hybrid Teas are Gladys Harkness, Gruss an Teplitz, Lady Battersea, La France, Liberty, Madame J. Grolez, Marjorie, Reine Marie Henriette, Viscountess Folkestone, Dr. Grill, Caroline Testout, Kaiserin Augusta Victoria, and G. Nabonnand. Mixed with the Roses are Violas (Williams' Niel), which do well."

"How are the other beds made up now?"

"There are four of Heliotropes, President Garfield, edged with Dactylis glomerata; two of Geraniums (Ball of Fire), a hundred and fifty Geraniums to each bed, edged with white Lobelias; two of Geraniums (Harry Hieover), edged with Lobelias (Mrs. Clibran); a single bed of Geraniums (Black Douglas), edged with Lobelias (Catherine Mallard); a single bed of Geraniums (Mrs. Pollock), edged with Lobelias (Catherine Mallard); four beds of Coreopsis grandiflora, edged with Dactylis glomerata; four beds of Marguerites (coronarium grandiflorum), edged with blue Violas; two beds with Box in the centre, Fuchsias (Mrs. Marshall), and Agathæa cœlestis, edged with Centaurea candidissima; eight beds of Iresine, with Geraniums (Lady Plymouth); four beds of Geraniums (Flower of Spring), edged with Pyrethrums; four beds with Ageratums in the centre, two edged with white Lobelias, and two with Mrs. Clibran Lobelias; four beds of Cloth of Gold Geraniums, edged with Pyrethrums; two beds with Box bushes in the centre, surrounded with Lilium candidum, edged with white Violas; and two beds of Begonias (rose colour), backed with Dactylis glomerata, edged with Echeveria secunda glauca. There are sixteen shrubs in the paths round the beds, the variety being Retinospora squarrosa."

"Then there are the beds under the house cut out in the grass?"

"There are twelve of these, containing Marguerites, edged with Geraniums (Lady Plymouth); Flower of Spring Geraniums, edged with white Lobelia; and Cloth of Gold Geraniums, edged with Pyrethrums."

"When do you put the Myrtles in tubs outside?"

"The second week in April, and we keep them there until the second week in October. There are four Myrtles and one Clethra arborea in tubs. At each corner of the west flower garden is a fine specimen of Amelanchier (or the Snowy Mespilus), which in spring resembles a chocolate cake, well sugared with white, starry blossoms and brown leaves; in the autumn it changes to every shade of crimson, and is more vivid even than the American Maple. There are also two Acacias, one at each corner."

Flower Borders at Castle Bromwich.

"How are the walls in this part of the garden clothed?"

"Chiefly with Chimonanthus fragrans, Coronilla emerus, Ceanothus azureus, Choisya ternata, Wistaria sinensis, Piptanthus nepalensis, Vitis Coignetiæ, Forsythia suspensa, Olearia dentata, Magnolia conspicua Soulangeana, Ceanothus rigidus, and Cratægus pyracantha. In the borders under the walls are Salvia patens, Polygonum Richardsonii, Love-in-the-mist (Miss Jekyll), Eryngium speciosum, Ageratum Lady Jane, and Aster sinensis. The background consists of one variety of mauve Asters (Robert Parker). To finish the west front, it might be added that underneath the windows of the house are a number of blue Periwinkles."

**The Conservatories.**

"What do the two octagon houses at the far end of the garden contain?"

"They are really the conservatories. The roof and walls of the one we are now entering, on the south side are covered by the Passion-flower (Passiflora cœrulea), Swainsona alba, Plumbago capensis, Roses (Maréchal Niel and Niphetos), Habrothamnus elegans, and an Orange tree. On the stages are Ferns, splendens grandiflora, Pteris serrulata, Grevilleas robusta, Hydrangeas (of which we have had some thirty-six inches round), Fuchsias (Mrs. Marshall and Mrs. Bright), and Geraniums (Lady Scarborough). Down the steps on this side is a fruit garden, with a long border of Lord Roberts Heliotropes, and a bed of Iris stylosa. The wall with the west aspect is covered with Moor Park Apricots, and underneath are Ellam's Early Cabbages, sown the third week in April, and ready for cutting the beginning of September. Opposite the Cabbages are Cauliflowers (Autumn Giant), and Drumhead Savoys."

"Here you have a nice collection of Sweet Peas."

"These are grown for cutting and house decoration, the varieties being Countess Spencer, John Ingman, Helen Pierce, Colonel Rose, Gladys Unwin, Henry Eckford, King Edward VII., Dora Breadmore, and Mrs. Charles Foster. The principal plants in the herbaceous border on each side of the grass path are Phlox (Fiancée), German Iris, white and blue Lupins, and Oriental and other Poppies. In this garden, also, are Gooseberries, Currants, and Raspberries (Superlative—seven feet high), of which we have had an enormous crop."

Returning to the other octagon conservatory, Mr. Nelson pointed out on the roof and walls Lapageria rosea, Roses (Gloire de Dijon and Sunrise), Lonicera, Jasminum, and, on the pillars, scarlet and white Convolvuluses.

"And on the stages?" I enquired.

"Perhaps the most noticeable feature just now is the batch of Moschatus riparia, which are lovely for perfume and blossom. Then there are Cytisus Andreana, Cheronia eriferia, and Campanula pyramidalis alba. Along the side stages are Geraniums—Lady Ilchester, Paul Raspail, Dr. McDonald, Conan Doyle, and Mrs. Pearson, also Ivy-leaved Baden-Powell, Mrs H. Martin, and Achievement. There are a few Malmaison Carnations, including Souvenir de la Malmaison, Lady Ulrica, Nell Gwynne, Margot, and Princess of Wales, and Tree Carnations in variety."

"What are the features of the garden on the north side, which, I notice, has a fine Hornbeam hedge?"

**Asparagus and Violets.**

"Well, facing the hedge are the Asparagus beds. The season lasts from the middle of March to first week in June, and we cut about five hundred heads weekly. In order to secure this crop, I give them (after the heads are cut down) a thorough good top-dressing of manure. This stays on all the winter, and I give them a dressing of salt in the spring. There are three hundred plants of Princess of Wales Violets here, which will be lifted next week, and put into frames for flowering."

"You have a splendid display of Stephanotis floribunda," I said, as we entered the stove.

"It was only planted two years ago. This is the second crop of lovely trusses this year, and it will continue to flower for six weeks longer. I picked ten dozen trusses of the first crop in one week. I suppose the secret of success is that I feed the plant with cow manure and soot water. Other plants in this house are the Caladiums, Begonias (President Garfield), and Dracænas in variety. In the next house there is a third crop of Tomatoes, the varieties being Duke of York and Carter's Sunrise."

"What is the name of the mauve flower with a lemon spot?"

"Torenia Bailloni. It is an annual, with charming green foliage, as well as a pretty flower, and it has been in bloom for three weeks already. I sow it in pans at the end of

March, prick out into 3-in. pots, and flower it in 5-in. pots. It remains in flower until the end of October."

"You grow Melons in the next house?"

"Yes, and we get two crops, some of them weighing just under seven pounds. The varieties are Dixon's Exquisite, Sutton's Jubilee, and Royal Chester. In this house, on one side are Begonias (Gloire de Lorraine and Turnford Hall), and, on the other, Crotons, Acalyphas, Abutilons, and Asparagus plumosa. In the frame outside are a number of winter-flowering Geraniums (Queen Alexandra), Marguerites and Pelargoniums—Kingston Beauty, Princess of Wales, and Madame Thibaut. The spring-bedding, likewise in the frame, includes a quantity of double white Arabis."

**The Principal Chrysanthemums.**

"What are the principal single Chrysanthemums?"

"Stella, Mary Richardson, Mrs. E. Roberts, Sir George Bullough, Framfield Pink, Annie Holder, Mary Anderson, Earlswood Glory, Ladysmith, Eureka, Edith Pagram, and Miss Rose. Amongst the best of the bush varieties are Nellie Pockett, Madame Gustave Henry, Thomas Moore, T. Carrington, George Mileham, Mrs. J. Thompson, Winter Queen, King of the Plumes, W. H. Lincoln, Millie Agate, and Ryecroft Scarlet. We also grow a number of singles in 6-in. pots; they are struck the first week in April, and flower in November."

"Do you use a great number of Violas?"

"Yes, they are a great feature here. The best varieties are Ardwell Gem, Mrs. Chichester, Mauve Queen, John Quarton, Duchess of Fife, Sir Robert Peller, and King of Blues. Here is the principal collection of Sweet Peas, the varieties including Navy Blue, Miss Willmott, Lady Grisel Hamilton, Duke of Westminster, Lady Aberdeen, Dorothy Eckford, Dainty, Blanche Burpee, and Black Knight. Sweet Peas are also sown in autumn for cutting in May, and the varieties, in addition to some of those named, include Joe Chamberlain. In front of the main block of Sweet Peas are Chrysanthemums of the Masse family, Stocks (Ten-week), Aster sinensis, and Pentstemons (Dobbie's strain)."

"You do not devote a Vinery to a particular Grape?"

"No, the varieties are mixed, and consist of Black Hamburgh, Muscat, Black Alicante, Lady Downe's Seedling, Mill Hill Hamburgh, and Gros Colmar. I had the outside Vine border taken out and relaid last year. The Peach house contains, on one side, Lord Napier Nectarine and Grosse Mignonne Peach, and, on the other, Brown Turkey and White Marseilles Figs. I root-pruned the Figs when I came here, and, consequently, obtained very good crops the following year. The Figs were planted in 1897, and had not previously carried a crop."

**Hardy Fruit.**

"What about your hardy fruit?"

"Apples, as you see, are on standards chiefly, and they are also grown in the orchard. Six of the best dessert are Cox's Orange Pippin, Blenheim Orange, Golden Russet, Worcester Pearmain, and Beauty of Bath; Keswick Codlin, Ecklinville Seedling, Warner's King, Hawthornden, Northern Greening, and Betty Geeson are six good cookers. I have lately planted a number of Pears, the six most notable being Bergamotte Esperen, Doyenné du Comice, Jargonelle, Pitmaston Duchess, Marie Louise, and Van Mons. Leon Leclerc (a very good French variety). The best six dessert Plums are Greengage, Coe's Golden Drop, Victoria, Transparent Gage, Jefferson, and Early Transparent Gage. The six best culinary are Czar, Magnum Bonum, Pond's Seedling, Orleans, Diamond, and Heron."

"You have a very effective Carnation border facing the Plums."

"Yes, that is quite a new feature, the varieties being Raby Castle, Duchess of Fife, Childe Harold, Duchess of Rothesay, Beauty of Windermere, and Old Clove. In the corner, close to the Carnations, spring bedding, including a vast number of Polyanthus, is grown. While we are here, and before we go to the shrubberies and archery ground, I might mention that there are large beds of Brussels Sprouts, Onions (Ailsa Craig and Rousham Park Hero), Broccoli (Leamington, which comes in for cutting in March), Artichokes (The Globe), French Beans (Tender and True), Peas (Dickson's First and Best, Prince of Wales, Autocrat, Gladstone, and Duke of Albany), Celery (planted in two rows, a hundred and sixty plants in a row, the variety being Baker's Rose), and Potatoes (Up-to-Date and other varieties)."

"You have not mentioned Strawberries."

"By the way, I always like to crop Strawberries after Potatoes. I only grow Royal Sovereign. I have tried others, but none do so well for forcing or for outdoor work."

**The Shrubberies.**

"A great deal of space seems to be occupied by your shrubberies, delightfully intersected with grassy paths."

"They have always been an important feature, and include many popular varieties, notably Retinospora plumosa, Berberis Darwini, and B. aquifolia, Cryptomeria (the Japan Cedar), Cupressus Lawsoniana, Cedrus Libani and C. atlantica glauca, Pyrus salicifolia, Glastonbury Thorn, Wellingtonia gigantea, and Catalpa syringæfolia. The wide grass glade beyond the shubberries is the archery ground, which is a hundred and fifty-six yards long and fifteen yards wide, bounded on the lower side by variegated Holly hedges."

"Then there is the Holly walk, which strikes me as perhaps your most charming feature."

"This walk is about a hundred and eighty yards long; the chief variety is Handsworthii. They are about twenty feet high, are kept trimmed, and are as old as the house itself. The stems are of great thickness, and in some cases the branches have turned down into the ground, taken root, and thrown up fresh trees. At either end of the walk is a red brick building with stone figures and facings. But now we ought to see the maze, passing on our way the new croquet ground, which I made in the spring at the end of the shrubberies."

"I see you have planted Sweet Briers round the croquet ground. What are the varieties?"

"Edith Bellenden, Flora McIvor, Green Mantle, Julie Mannering, Jeannie Deans, and Lord Penzance. The maze is about six feet high, is planted in Holly and Quick, and is laid out on the same lines as the one at Hampton Court. There is an Aloe in a vase in the centre."

Noting a nicely-arranged rockery, containing several varieties in flower, we concluded our inspection with the north garden.

"Here," said Mr. Nelson, "a feature is that Yew hedges entirely surround the garden. They are about twenty-five feet high, and stand out, thick and dense, some twelve feet from the walls behind them. There are two noble specimen trees (a Tulip and a Beech), beds of Rhododendron, variegated Hollies, Kalmias and a pink Thorn, planted by the present Princess of Wales, in 1897, on the silver wedding day of the Earl and Countess of Bradford."

**Mr. Nelson's Career.**

"Where was your experience gained before you came to Castle Bromwich?"

"I started at Escrick Park, Yorkshire, where I went through a proper course of training, under the late Mr. Mitchell, and I think that all young men should spend at least three years outside before they enter the houses. At the end of nine years I went to Weston Park, Staffordshire, and remained there four years; then I was for twelve months foreman at Glossop Hall, Derbyshire. My next appointment was that of general foreman at Gordidnog, Llanfairfechan; and finally, before I came here, two years ago, I was for six years head gardener at Caerynwch, Dolgelly."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 275.—CHRYSANTHEMUMS AND SOOT.

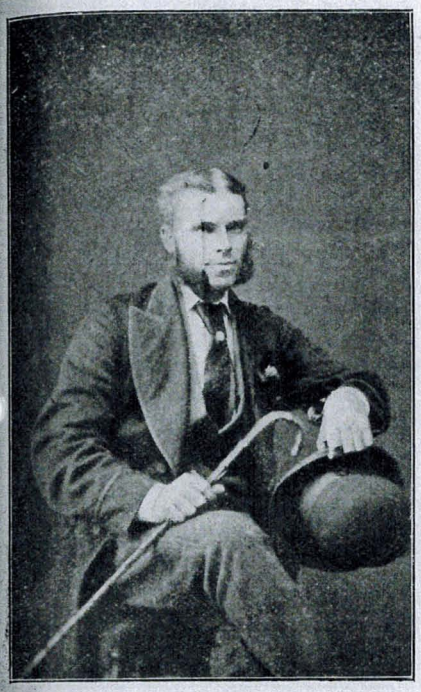
DEAR KATE,—What did our forefathers do without Chrysanthemums? It is such a comfort, just as the dark days of November are upon us, to feast our eyes on the glowing tints of the Queen of Autumn, and to feel that we shall have them in succession till the end of the year. I see that the blooms at the great London show of last week were reported to be "as big as your head"; but I am pleased to see that it is also on record that an increasing number of exhibitors showed "decorative" Chrysanthemums, instead of these overfed monsters, which, I am sorry to say, always remind me of fat prize pigs, unable to hold up their heads, and requiring props to do so.

**Chrysanthemum Culture.**

But there is no doubt that the cult of the Chrysanthemum has its special fascinations, in whatever class you compete, though I prefer the smaller flowers of the single varieties and of the early-flowering doubles, to the giant blooms, for they are so elegant and useful for cutting, producing dozens of bright blossoms instead of only one. But most of them are improved by slight disbudding, *i.e.*, taking off the tiny side-buds which form below the upper spray, and reducing the number of flowers on this to four or five, for the lower buds usually flower too late, and are too poor to add to the beauty of the spray. Disbudding should be done directly the buds are visible, then the sap, which would have stopped to swell those which are removed, goes up to the higher buds, and increases their size and beauty; you should also give the plants soot-water and liquid manure once or twice a week, from the time the first buds show, which will improve their colour and size, so that each spray is a thing of beauty. We have given up using Chrysanthemums in the conservatory, because this is kept warm for the Poinsettias, Bouvardias, Sericographis, etc., which now make it very bright, and we find that the Chrysanthemums last so much longer, and produce far stronger cuttings for next season, when grouped in the cool glass porch, which is now full of them.

They enjoy an abundance of air, night and day, as well as of sunshine there, and we never close the upper ventilators while they last, as a stuffy, close atmosphere is very injurious to them, and mildew is sure to attack these flowers if kept in a close place. Watering, too, must be carefully regulated; it is foolish to soak roots which are already wet, and yet there must be no dropping of the foliage. You should consider the weather and the amount of sunshine which reaches your plants, as well as the state of the soil, on the surface, before watering them, and this consideration becomes more than ever necessary in dull, foggy weather, or during heavy rain, when the air is already

beast is now in the stove. It came with some plants which we purchased abroad, and seems disposed to settle here, a proceeding to which I am strongly adverse, so I have been trying the effect of an insecticide. I am sometimes pleased to think that the creature has disappeared, only to find it reappear a few weeks later. The moral is an obvious one. All plants purchased abroad, or even at an English nursery, should undergo a



MR. A. NEWELL.

period of quarantine, and be carefully disinfected before they are allowed to join the inmates of the greenhouse or the conservatory. For it is easy enough to introduce a new insect or a new disease, but often exceedingly difficult to get rid of it. Unfortunately, plant sanitation is a subject to which very little attention is paid in this country. In America it is different. I see that Dr. E. Smith, who belongs to the United States Agricultural Department, says the mysteriously sudden death of many trees is due to a germ which gains entrance through a wound. If , it affords strong evidence of the necessity of ntiseptic treatment after pruning.

January 17th.—I have been reading anew Darwin's "Origin of Species." It is a wonderful book, displaying wonderful powers; yet the impression made upon my mind was that its author credited Natural Selection with more than it is entitled to. I am glad to have this impression confirmed by a very eminent botanist. In a letter just received, he writes: "'Indefinite' does not apply to a single variation; but what Darwin meant by the term was that, supposing a hundred seeds of any plant found themselves in new conditions, they all varied indefinitely, some injuriously, others indifferently, but one or two favourably. Then these would live, and all the rest die. That is what he meant by the Survival of the Fittest by Natural Selection. The fact is that the hundred (everyone of them) would all vary alike and favourably; so that they would all survive, and there would be no Natural Selection, for there would be no variations from which to select. They do not all survive, because the stronger smother the weaker. It is only in that sense that Natural Selection acts; but this has nothing to do with variations." That is a very clear exposition of the view held by scientific men at present.

H. C. DAVIDSON.

*(To be continued.)*

## FAMOUS GARDENERS AT HOME.

No. 69.—MR. A. NEWELL, AT FAIRLAWN COTTAGE, WIMBLEDON COMMON.

AN excellent illustration of the manner in which, by the instrumentality of skill, taste, and adroit management, a suburban garden can be turned to good account, is afforded in the case of Fairlawn, the residence of Lady Saunders, widow of the late Sir Edwin Saunders, who for several years was President of the National Chrysanthemum Society, and himself was not only extremely fond of flowers, but also had a considerable knowledge of them. Mr. A. Newell, who has been in charge of the garden (which was laid out by Marnock) for twenty-three years, has won a considerable reputation in the horticultural world as an exhibitor.

But before I asked Mr. Newell any questions about his successes at the shows, I had an opportunity of seeing the lines on which he works at home. The garden is three and a-half acres in extent, and, owing to the judicious arrangement, looks a great deal larger. Every corner is made the most of, and objects beyond, which might spoil the perspective, are cleverly kept out of it. The conservatory, at a season when lack of brightness needs no explanation, was full of colour, and among the notable contents of the house Poinsettias merit special recognition. No feature of the place, however, is more creditable to Mr. Newell than the lawn, which deservedly has a reputation for excellence. It is just like Brussels carpet to walk upon, and there is not a weed in it.

"How," I said to Mr. Newell, "do you contrive to maintain it in such a condition?"

"Early in the year," he replied, "we go over it with a little paraffin, putting it on by means of a small brush. I like paraffin, because afterwards the Daisies always look as if they had been oiled, and it is evident that they have received attention. In February we manure the ground all over with farmyard manure. Some time in March I select a square in an out-of-the-way corner for the repairing of any piece of the lawn that requires it. I adopted this plan because round London it is difficult to obtain good turf. When the square has been removed, I have the soil nicely dug over. Then we sift some old loam from the rubbish-heaps, and, as the turf is edged round the walks in March, we collect the small pieces of it, and lay them in over the square, sift more soot, and carefully roll. The square is always well watered. In about twelve months it can be taken up again."

"In other words, you make your own turf?"

"Yes. Another point is that we do not start mowing too soon, while we also leave off rather earlier than is usual in the autumn. Sir Edwin thought that an expanse of Grass set the place off immensely, and could not receive too much attention. Lady Saunders has continued the interest which Sir Edwin took in the garden, and her main object is to have it as it was in his lifetime."

"It is remarkable how you have managed to keep the view open, and yet to hide any building in the perspective."

"That is due to the fact that trees, even the large ones, as well as shrubs, are continually pruned. I often think that there is a good deal of room for improvement in the pruning of trees in public thoroughfares. As you see, we have some good specimens of Beeches, Elms, and Oaks."

"Judging by the Chrysanthemums in the conservatory, you are determined not to lose the reputation which Fairlawn has won?"

"No, I do my best in that direction, and I always like the conservatory to be as bright in the winter months as possible. The walls are covered with Camellias, Helianthemums, and a remarkable specimen of a 'Mrs. Marshall' Fuchsia covering one wall fifteen feet by sixteen feet. It is a mass of bloom in the summer."

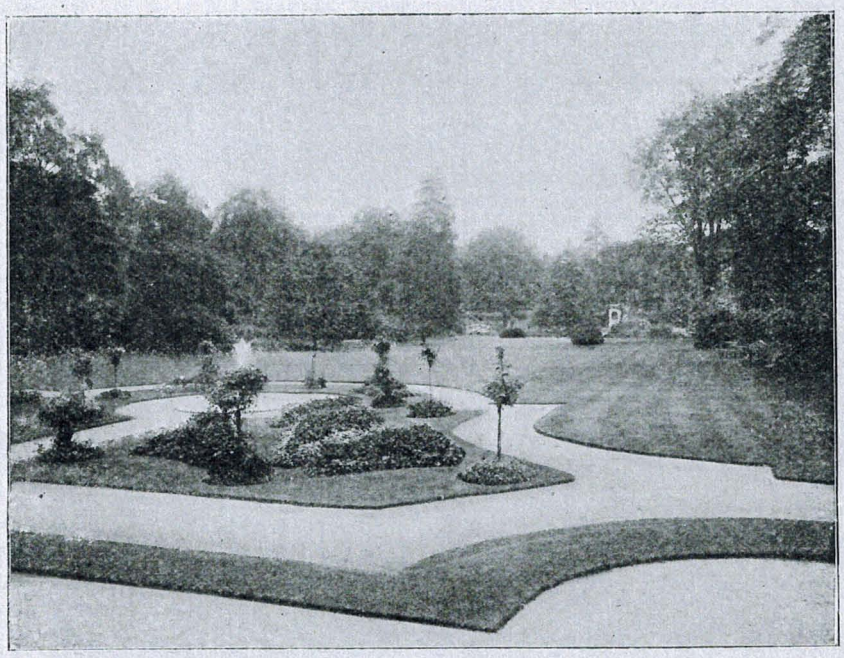
"When was it planted?"

"I planted it when I came here. There will be no difficulty in keeping up a supply of late Chrysanthemums until February."

"Which do you prefer of the late varieties?"

"Lincolns. They make a capital show, arranged in the conservatory with Poinsettias. Our present stock of Chrysanthemums consists exclusively of bush plants, which we find so useful for cutting. I think we have a nice lot of Poinsettias."

"How do you treat them?"



THE GARDENS AT FAIRLAWN, WIMBLEDON.

"I grow half young plants, and half old plants cut down. The latter stand the fogs better. We also mix Poinsettias with Geraniums, of which we have a large number. One of the houses is full of Arum Lilies and Primulas; and, as you observed just now, Chrysanthemums fill the Peach-house. In fact, we require to utilise all the room we have."

"What varieties of Peaches do you go in for?"

"Veitch's Dymond, Crimson Galande, and Noblesse. In the vinery we have Black Hamburgh and Foster's Seedling. I choose the Grapes for their good flavour, and I do not care for the hard-skinned fruit."

"All the frames," continued Mr. Newell, "are filled with bedding plants. Frames, I find, are more useful than houses for many things. As showing how largely we go in for bedding plants, I may mention that I planted two thousand Calceolarias. In the flower garden, after the bedding plants are taken up, bulbs are put in. But instead of the beds looking bare, we improve their appearance by sticking in little pieces of shrubs, such as variegated Hollies and Aucuba. Then we cover them with cocoanut fibre. I used to put in Forget-me-nots, and other spring plants, for gr[illegible]work, but they were ruined by the fogs. N[illegible] do not disturb the spring-bedding plants until the Tulips are nearly in flower, with the result that I do not lose any."

Then, after noticing how all the walls are covered with Ivy, the house alone being purposely kept clear of all creepers, we proceeded to the kitchen garden. Here, again, there are unmistakable signs of making the most of available space. It is well furnished with Apples, Pears, Plums, Cherries, and Damsons, and bush fruit, of which Black and Red Currants, and Gooseberries, Mr. Newell says, do remarkably well.

"And Raspberries?" I enquired.

"We cover up the boards with Raspberry canes. Any little piece is covered up, the central idea being to get as much as we can out of the ground. We get two crops a year of many of the vegetables—Cabbages, for instance. My plan with respect to Cabbages is to refrain from sowing any seed until late in August. This tends to diminish the size of the plant, and the smaller the plants the better they stand the fogs. We also get some fine crops of Onions."

"How do you manage to get your two crops a year?"

"I manure the ground very heavily. Fresh lime, not gas-lime—which is injurious to the crops—should be used. It should be laid in a h[illegible] say, a barrow-load, and covered over w[illegible] soil. Instead of the lime being spread about, I have it dug in, and thus obtain the full advantage to be derived from its properties."

"Have you any other hints to give amateurs respecting the cultivation of vegetables?"

"They may like to know that for eighteen or nineteen years no Pea-sticks have been used here. Instead, I use wire hurdles, both for Peas and Scarlet Runners. I find them most useful, as well as inexpensive. They protect the plants. I lay the hurdles on the Pea rows as they come up, and the birds fight shy of them. Another point is that it is easy to cast a net over the hurdles. Also the hurdles are invisible; only the Peas are to be seen. Cattle wire answers the same purpose. In buying the wire, it is much cheaper to order a fifty-yard roll."

"Do you use several sizes of hurdles?"

"Only two, namely, three feet and four feet. They need strong stakes to fix them to, varying in length from four to eight feet. They last for three or four years. I fix the hurdles to the stakes with fine 2-in. wire nails; this is better than tying them. The hurdles can be fixed two feet above the ground, and one foot or more above the stakes. I never use the hurdles until the Peas or Scarlet Runners have covered the 2-ft. stakes. For scarlet Runners I use a double row of hurdles."

"You grow Mushrooms?"

"Yes, and my experience is that the beds last longer if soft water is used. If it cannot be obtained, hard water should be given through straw. I attach importance to having a place for everything, and my tool-house is so arranged that every tool can be found in the dark. In addition to gardening, we rear between forty and fifty ducks, and kill fowls every week all the year round, as well as keep the house supplied with eggs."

"Now, about your own career, Mr. Newell. Where did you start?"

"At Stow Hall, in Norfolk, under Mr. Orr. I first showed at the exhibition of the Stow Horticultural Society, as a boy of eighteen. My exhibit was a model garden, laid out exactly as it should be, and Lady Hare was so pleased with it that Mr. Orr took me into the Hall garden at the first opportunity."

"Did you remain at Stow for many years?"

"Five and a-half, during which time I became foreman. Then I came to Fairlawn."

"When did you begin showing here?"

"In 1883, at the Putney and District Show, when I got the first prize for Chrysanthemums—a silver cup. The next year, 1884, I showed a group at Wimbledon, and was awarded the first prize, a cup value £5 5s. In 1887 I won the Jubilee cup at Putney, and in 1893 the tradesmen's silver cup at Wimbledon, for a group. There were eight competitors. In 1896 I won the cup again at Wimbledon, and also the centenary medal for the best exhibition in the show. Then I beat the record, and carried off the first prize at the same time for the miscellaneous group. The best first prize I won was at the December show of the National Chrysanthemum Society, for a large vase of Chrysanthemums tastefully arranged, in a class of nine exhibitors."

"I should like to have some particulars of your showing in other classes."

"I have won fourteen first prizes for groups of single and double Begonias on fourteen occasions, including the Royal Horticultural Show twice. I have obtained first prizes for Melons and Cucumbers at Richmond and Wimbledon. Also, whenever I have shown hardy herbaceous plants at Wimbledon I have taken first prize. I have had ten firsts for twelve bunches. Many years ago, when the Wimbledon Society was started, the prizes were given for four little bunches, but ten years ago the number of bunches was increased, and a regulation as to taste in arrangement introduced. I think that regulation ought to be general."

"You have always, I gather, gone in for grouping?"

"Yes, from a lady's shower-bouquet, or a gentleman's buttonhole, to a large group of Chrysanthemums. I have taken, among other prizes, at Wimbledon, three first for the most tastefully-arranged dinner-table; several at the Westminster Aquarium, for a table of flowers and foliage plants arranged for effect; one at Wimbledon for a basket of plants; and one at the Westminster Aquarium for a collection of Primulas. I have taken many firsts for Primulas. My record in 1900 was twenty firsts and two seconds, and I only exhibited on twenty-two occasions."

"Is there anything more you would like to add?"

"I may say that I have won three first prizes for the most tastefully-arranged fireplace and mantel. Also that Mrs. Newell helps me a good deal, and has herself shown considerably."

"Has she taken any prizes?"

"Yes; she was awarded the first prize (a silver-gilt medal) for a hand-basket of Chrysanthemums in 1885 at the show of the National Society. My son Ernest has already started showing, and took the first prize for wild flowers in 1902, against between thirty and forty competitors at Roehampton."

"But," concluded Mr. Newell, "the most important work I have done has been as a member of the schedule committee of the National Chrysanthemum Society, and the committee of the Wimbledon Society. I have been on these committees for many years. I have also read papers at meetings of the Gardeners' Mutual Improvement Societies, on such subjects as 'Grouping,' and 'Floral Decoration.' I think that the value of such societies cannot be exaggerated."

ALFRED WILCOX.

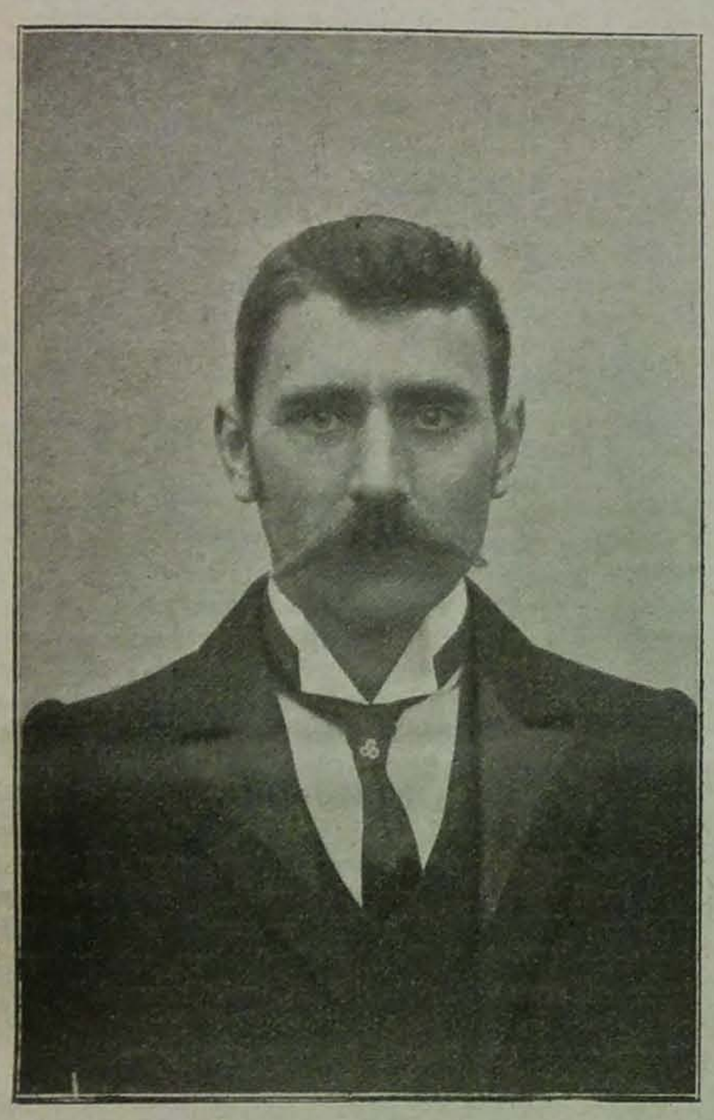
## LETTERS FROM A LADY GARDENER.

### No. XXV.—POT VINES.

DEAR KATE,—Yes, you can certainly grow your own Grapes in that sunny little greenhouse of yours, although it must be by growing pot Vines, as you cannot manage a border, either inside or out. This is the best time to start them, and you should choose a young Black Hamburgh Vine, in a 12-in. pot, with a cane as thick as your middle finger, and about eight feet in length. Place the pot on the stage close to the glass, and sling the rod horizontally under the roof, and about one foot below the glass. Then top-dress the surface soil with the richest mixture you can get; manure from the hen house (mixed with lime and soil, and kept for some weeks in a dry state), old hotbed material, Clay's fertiliser in small quantity, soot, etc., are all good for this purpose, adding some good loam to the compost. Do not fill the pot too full, as ample supplies of water are necessary; and, after watering the roots thoroughly, syringe the stems of the Vine daily, at 3.30, and close the ventilators and door at that time for the night. Very soon the buds will begin to swell, and the young shoots must be trained on wires, at right angles to the main stem, and treated in the same way as Vines in general, *i.e.*, their points nipped off two leaves past the bunch of bloom, and the sub-laterals kept in order as they grow. The whole process will be made clear to you in these pages when the right time comes for these things to be done, if you look in the "Work for the Week" column, so I won't anticipate. But you should understand that much depends upon the temperature and ventilation of the greenhouse, and that early closing, careful and gradual opening in the early morning, plenty of tepid water daily (two cansful will not be too much), with liquid manure also when the Grapes begin to swell, and careful watching of the foliage, which should be kept free from all blight, by daily syringing until the Grape begins to colour, are all necessary to success. The Grapes, too, will need to be thinned, when they are as large as Peas; this is fascinating work, just suited to a lady's fingers, for the berries must be manipulated with a bone knitting pin, or a pencil, and not at all touched by the hand, or anything else, or the bloom will be spoiled.

We have just put in eighteen Vine eyes, six of White Frontignan, and twelve of Black Hamburgh, each in a little pot by itself (and fixed horizontally on the surface of a little good compost with a short hairpin), for pot Vines for next year. The little pots are sunk to the rim in a bed of wet moss (previously dipped in boiling water, to destroy all insect life), in a box fitted on to the long, hot-water pipes in the vinery, with fine wire netting, instead of wood, at the bottom. This is our forcing box, and a most interesting place it is, for we have Lilies of the Valley, early bulbs (Hyacinths), seeds of Cannas, Palms, etc., etc., in it; and the Vine eyes grow rapidly in the warmth. When their roots reach the bottom of the pot, they will be transferred to 4-in. pots of richer soil (warm and moist, not to check them), and put back into the forcing box, only gradually hardening them to come out of it in May; for the great necessity in growing young Vines is to avoid the slightest check for them all through the season. They will be potted on again in March, giving them 7-in. or 8-in. pots, and from these transferred in the beginning of June into 12-in. pots (or boxes), after which they will be trained up under the glass, like the other Vines, and fed very highly; then at the end

spoil any Dahlias wanted for garden decoration, and that is what chiefly concerns most of us. I have, therefore, made a list of the varieties which are pronounced free from such faults. Here it is:—A. D. Stoop, Avoca, Caradoc, Flash, Florence M. Stredwick, J. C. Newbury, J. H. Jackson, May Carpenter, Mrs. G. Stevenson, Mozart, Primrose, Signal, and West Hall Scarlet. The foregoing are mostly described as having their "flowers well held, on stout stalks, above the foliage." It will be seen that there are only thirteen of them, a very small proportion out of ninety-one. There are several others, but I have omitted them because they are described as characterised by some other defect, such as "flowers above foliage, but not free," "bad form," and so forth. A large number have received the award of merit, but no other indication is given as to which is



MR. W. H. NEWTON.

considered the best. I notice, however, that one, Hyacinth, salmon-pink, with yellow centre, is described as "of exhibition form," though the flowers are "buried in foliage."

**Rambling Roses.**

February 19th.—Common as Roses are on arches and pergolas, they are rarely grown over rustic bridges, yet when they are so used, the effect is very charming. One of the best varieties for the purpose is Thalia. The flowers are white and semi-double, and, though individually small, they are produced in large clusters most profusely, and for such a long period that the variety is called a perpetual flowerer. It used to be classed as a Polyantha, but apparently that name is now reserved for dwarfs; and the climbers, such as Crimson Rambler, Thalia, and Aglaia, are placed in a separate class, under the name of Multiflora scandens. It is hard to see what good purpose is served by the multiplication of classes. Aglaia, though its bright yellow flowers are very attractive, and possess the additional advantage of being scented, is in one respect not nearly as satisfactory as Thalia. It is much longer in coming into flower, the reason being that the flowers are borne on the sub-laterals of three-year-old wood. This fact should be remembered when pruning it. Indeed, it is much safer not to do any pruning to this variety, beyond the removal of dead wood. The same thing applies to many other climbers, including some of the Noisettes, such as Reve d'Or. Marechal Niel, again, flowers on the shoots of the previous year, and if these are cut away when other varieties are pruned, there will be no flowers.

H. C. DAVIDSON.

# The Gardens at Little Heath Wood, Potters Bar.

INTERVIEW WITH MR. W. H. NEWTON.

WHEN I visited the gardens at Little Heath Wood, in January, by courteous permission of Mrs. McDowell Nathan—who also lent photographs for purposes of illustration—a searching wind was blowing, and it was easy to understand that there are special difficulties in respect to cultivation on the northern heights of Hertfordshire. The house itself is not a modern structure, but one of the old-fashioned yet comfortable mansions, which were erected generations ago. The gardens also have preserved their old-world appearance, while in every direction there are evidences that the work of beautifying them and adding to their charms has proceeded steadily. Mr. Newton, the head gardener, has been in charge for nine years, and he is obviously keen to effect improvements and carry out extensions. At the carriage entrance there is not much scope for ingenuity; but the most is made of the available space, and the effect in summer, when, as Mr. Newton told me, Palms, Bananas, and Pines, in pots, are placed on the grass facing the house, is very pleasing.

"For spring," he continued, "the beds here are filled with Blood-red and Yellow Queen Wallflowers, and Tulips (largely of the Parrot section), edged with double Arabis and Aubrietias. In summer, those on the same side as the house are planted with Dahlias (of the Pæony section), Marguerites, and Henry Jacoby Geraniums, edged with dwarf bronze Geraniums Cleopatra, and double blue Lobelias. The latter do better than the single variety. The four beds opposite the house are filled with Begonias of mixed colours, and the centre bed with Begonias Phosphorus. It being shady and moist under the trees, they thrive and last a long time."

**Carpet Bedding.**

"Have you any carpet bedding?"

"Yes, you will see it in the front of the house, by which I mean the lawn front. The spring bedding consists of Tulips and double white Arabis in one set, and Hyacinths with Arabis in the other. I am introducing Golden Privets in these beds as a decoration."

"And the scheme for summer?"

"The round beds will be planted with Alternantheras nana, paronichoides major, and amabilis, with Iresines, Sedum for groundwork,

THE LAWN AT LITTLE HEATH WOOD, POTTERS BAR.

and an edging of Sempervirens roseum, and Echeveria secunda glauca, the dominant colours being red and yellow. Pink, red, and white are the prevailing colours in the square beds, the contents being tall Ivy-leaf Geraniums, standard Heliotropes, Abutilons and Fuchsias (chiefly Mrs. Marshall), with a groundwork of Geraniums Martin Churton, Queen of Whites, and Henry Jacoby, edged with Echeverias. The vases on the terrace are filled for spring with Hyacinths and double white Arabis; later, mainly with mixed Geraniums."

"In addition to many fine specimen trees, the lawn is adorned with numerous combinations?"

"They have been done gradually since I came, at which time the pleasure grounds comprised only grass and walks. We think that amongst the finer trees are the Thuia Lobbi, which are feathered to the bottom, and have not a break in them. Then, there are Cedrus deodara, Cupressus Lawsoniana, and Juniperus, with others. The rootery on the lawn, with a circular archway and Roses Crimson Rambler, is now full of Daffodils, Aubrietias, Cerastiums, Ivy (yellow and variegated), and Myosotis. The Crimson Ramblers are edged with May-flowering Tulips. The beds of mixed Roses are edged with Mrs. Sinkins and Her Majesty Pinks, and Jackanapes, Royal Sovereign, and Purple Admiration Violas. The Roses used for shapes include Hiawatha as a balloon, and Ramblers in the form of a diamond. The two beds of Pampas Grass may also be worth noting."

**The Rosery.**

"Beyond these is the Rosery?"

"Yes, but before we inspect the Rosery, I may mention that the walk which we are now traversing is a mile long, and encircles the park. It is edged all round with Daffodils (about thirty thousand), and in the wood, from which the place takes its name, are tens of thousands of Bluebells and Foxgloves. The Rosery is the boundary of the garden."

"When was it made?"

"It was taken in from the park two years ago. As you see, we are making a wall garden with cement pockets, in which we grow rock plants, such as Aubrietias, Saxifrages, Polyanthas, and Ferns. This being on the north, cold side of the house, we do not prune the Roses very early, as we like to get blooms about the end of June, or the beginning of July for exhibition. Many of the varieties flower until the frost stops them late in the autumn."

"What is the natural soil?"

"Solid clay. We have had to add leaf-mould. The varieties grown in the Rosery are Florence Pemberton, Comte de Raimbaud, Bessie Brown, La France, Dr. J. Campbell Hall, Killarney, Mrs. Aaron Ward, Horace Vernet, Mrs. Conway Jones, Countess of Derby, Earl of Warwick, Victor Hugo, Hugh Watson, Madame Abel Chatenay, David Harum, and Frau Karl Druschki. I am going to plant the outside wire, which runs right along, with Crimson Rambler and Dorothy Perkins, and Penzance Briers. These and Lady Gay, with Clematis montana, are planted on the pergolas outside."

**A Pretty Walk.**

"You have several attractive features in this walk."

"We have been doing our best to make it look nice since the old trees were cut down. Speaking of old trees, there is a stump which has been clothed with Polygonum Baldschuanicum, whose panicles of white flowers are very ornamental between June and September. Planted along the borders, which are filled up with Azalea mollis, are Buddleia variabilis, Tree Pæonies, Euonymus, Weigelas Eva Rathke and rosea, Spiræas Anthony Waterer, Coronilla, Olearia dentatus, the common Broom, double-flowering May, Prunus Pissardi, Forsythia suspensa, Berberis Darwinii, and the Dartmouth Crab."

"There is another stump of a tree, I notice, turned to good account."

"It is an old Oak—Oaks are a great feature in the park—filled up with Nasturtiums, Ivy-leaved Geraniums, and Tropæolum canariensis, which hang down the tree, and make a show. By the way, there are several plants of Cistus ladaniferus in the borders, and early-flowering Chrysanthemums are used as an edging."

"You have not mentioned the Rhododendrons."

"They are chiefly hybrids, and we do not use peat for them. The water at this point was formerly a disused pond. This I planted with Yuccas and Sempervirens, putting up the rustic bridge, which in the summer is covered with Ivy-leaved Geraniums. The pond further on I hope to make into a good Lily pond. This is just outside the fruit garden."

**The Fruit Garden.**

"But you also grow vegetables here," I said, as we entered a garden with wonderfully solid walls."

"A good many. It has, however, always been called the fruit garden. We not only grow vegetables, but Mushrooms, here."

One of Mr. Newton's Exhibits.

"When do you make up your beds?"

"In September. The bed, which is ten yards long, is covered with leaves and straw on the top, with hurdles to keep it down. We have been picking Mushrooms from this bed since a fortnight before Christmas. Seakale is grown in the adjoining bed. I use leaves to cover the crowns, and not manure. The heat is more gentle. I get the leaves together in September, as they fall from the trees, until I have enough for a good shelter. Afterwards, the leaf-mould is used for potting. We start cutting Seakale in November."

"What fruit do you grow on the north wall?"

"Morello Cherries, Pears (Marie Louise), Plums (Magnum Bonum), and Gooseberries trained up. The trees of the last have been here fifteen years, and are twelve feet high—the height of the walls. On the south wall, Pears (Beurre Rance and Clapp's Favourite), Apricots (Moor Park—the trees often loaded with fruit), and Nectarines Balgowan and Violette Hative. Peaches Late Admirable, Barrington, and Crimson Galande are also grown. More Peaches and Nectarines are grown on the west wall, with Durondeau Pears."

"What varieties of Pears do you find flourish as standards?"

"Josephine de Malines is one. You may be interested to learn that it was formerly grown as an espalier, and did not thrive. No doubt the reason was because it naturally fruits on the ends of the branches. Anyhow, it bore no fruit as an espalier. Two years ago I converted it into a standard, and the growth has been amazing. Pears will not do here as espaliers, but Apples will. For instance, White Transparent, Cox's Orange Pippin, Court Pendu Plat, King of Pippins, Beauty of Bath, and Astrachan."

"Do you grow many Raspberries in your fruit cage?"

"A fair quantity, all Superlatives. Red Currants and Gooseberries (Crown Bob, Whitesmith, and May Duke) are also grown. The cage is wired, and the top netted when the trees fruit, lime being also used for protection from the birds."

"What are you growing on the large piece of ground just trenched?"

"Peas, Beans, and Celery, to follow Potatoes. This ground is trenched a yard deep, and plenty of good stuff is put in the bottom. The Peas chiefly used are Early Rival, William I., Quite Content, Duke of Albany, Gradus, The Gladstone, Ne Plus Ultra, and Autocrat. We begin with Peas in pots, commence picking outside in June, and go on to the end of October. The rest of the outside fruit and vegetables is grown in the other kitchen garden, which also includes the glass ranges. Here are Black Currants grown on the wall."

"Do you suffer from the mite?"

"This tree has never shown a trace of it. In this garden, several Apples formerly grown as espaliers have been allowed to let go as standards, with most satisfactory results. Blenheim Orange is one of these, and Lane's Prince Albert another. On the west wall are Plums, Angelina Burdett, Bryanston Gage, The Moffat, Monarch, Jefferson, Greengage, and Reine Claude de Bavay. Apricots (The Peach) do well on the south wall, and Nectarines (Rivers' White). Under the south wall is Winter Lettuce (Hicks' Hardy Cos), but we grow Lettuce of some kind all the year round."

**Economy in Strawberry Culture.**

"You appear to have a pergola of Peaches?"

"It was only made last year, and in this case the Peaches, which are grown on a wire trellis, are used for the sake of the flowers rather than the fruit, to give brightness to the garden. The variety is Early Purple."

"Have you anything special to say about Strawberries?"

"The plants we have forced are put out of the pots under a north wall, and give good crops in the late autumn. I know that it is customary to throw them away, but we find that with this treatment they come round again and give good crops. The variety treated in this way is chiefly Royal Sovereign. We start picking from the pots at Easter, and go on to October. The varieties outside, in addition to Royal Sovereign, are Elton Pine, Bedford Champion, Givon's Late Prolific, Saint Antoine de Padoue, Trafalgar, Louis Gautier, Waterloo, The Laxton, and Viscomtesse de Thury."

**A Blaze of Begonias.**

Commencing the round of the glasshouses, we entered the flower-house, and my attention was at once attracted by a fine show of Primulas obconica and kewensis.

"The variety of obconica," said Mr. Newton, "is Brilliant. We use them largely for table decoration, and you can gather their value for that purpose from the fact that these have been in flower since September, and will continue until late spring. With regard to cultivation, we grow them in frames, and pot them on in 'sixties.' For the rest, the ordinary green-

house treatment is adopted. We do a great deal of decorating in the house, and therefore have to tax all our resources. For example, Cryptomeria is grown as a pot plant for that purpose. Begonias are very largely used."

"And you have a very fine show of them."

"These are principally Mrs. N. Rothschild, which we began to grow last year, and now prefer to the ordinary Gloire de Lorraine. They last longer, the flowers are much bolder, the colour is richer, and the habit is better. The treatment is similar to the Gloire de Lorraine. Grown as you see them in baskets, their great clusters of blooms and their fine foliage make a very striking show. You may like to know something about our West Indian plants."

"I notice you have Bananas in the Orchid house."

"The variety is Musa Cavendishii. With regard to other West Indian products, we have the Sugar Cane, and place pots containing it out of doors all through the summer. Then there is Monstera delicosa, whose fruit takes twelve months to ripen. In the stove and other houses are Phyolotia Lindeni, an ornamental foliage plant which we exhibited this year, and Dieffenbachia Baueri, which was also shown. Aralias are another importation from the West Indies, and twelve months ago the Dove Orchid (Peristeria elata) was sent from its native habitat. One of our Pines, which are grown in pots, is also from the West Indies. The other varieties are Cayenne and Queen. Then we grow the Avocado Pear, with edible fruit, from seed, and a quantity of Maize."

**Streptocarpus and Gloxinias.**

"Then, as to other flowering plants," I said, observing a show of Streptocarpus.

"That Streptocarpus was raised here and sold two years ago to a seedsman. It is more robust in growth than the other varieties, and has beautiful large blue flowers, resembling Gloxinias, which are very useful for table decoration in the daytime. Referring to Gloxinias, we devote a house entirely to Rex and Achimenes, which make a good show in the summer. They are grown in good yellow loam and leaf-soil, with rotted cow manure over the crocks, which benefits the roots when they get down to it."

**The Treatment of Euphorbias.**

"Do you go in for Poinsettias?"

"No, instead of them we use Euphorbia jacquiniæflora. We generally give these plants a little rest after flowering, and then start into growth. When the cuttings are about three inches long, they are put in the propagating-case. We next pot them off, usually putting three plants into large 'sixties.' After this they are potted on into 'thirty-twos,' and in these pots make good plants for the house. As to soil, we use good fibrous loam, leaf-soil, and a little peat. They are generally grown in the frames during summer. Herbaceous Calceolari are another feature, and we grow a house full of them, to flower in May."

"What is your treatment?"

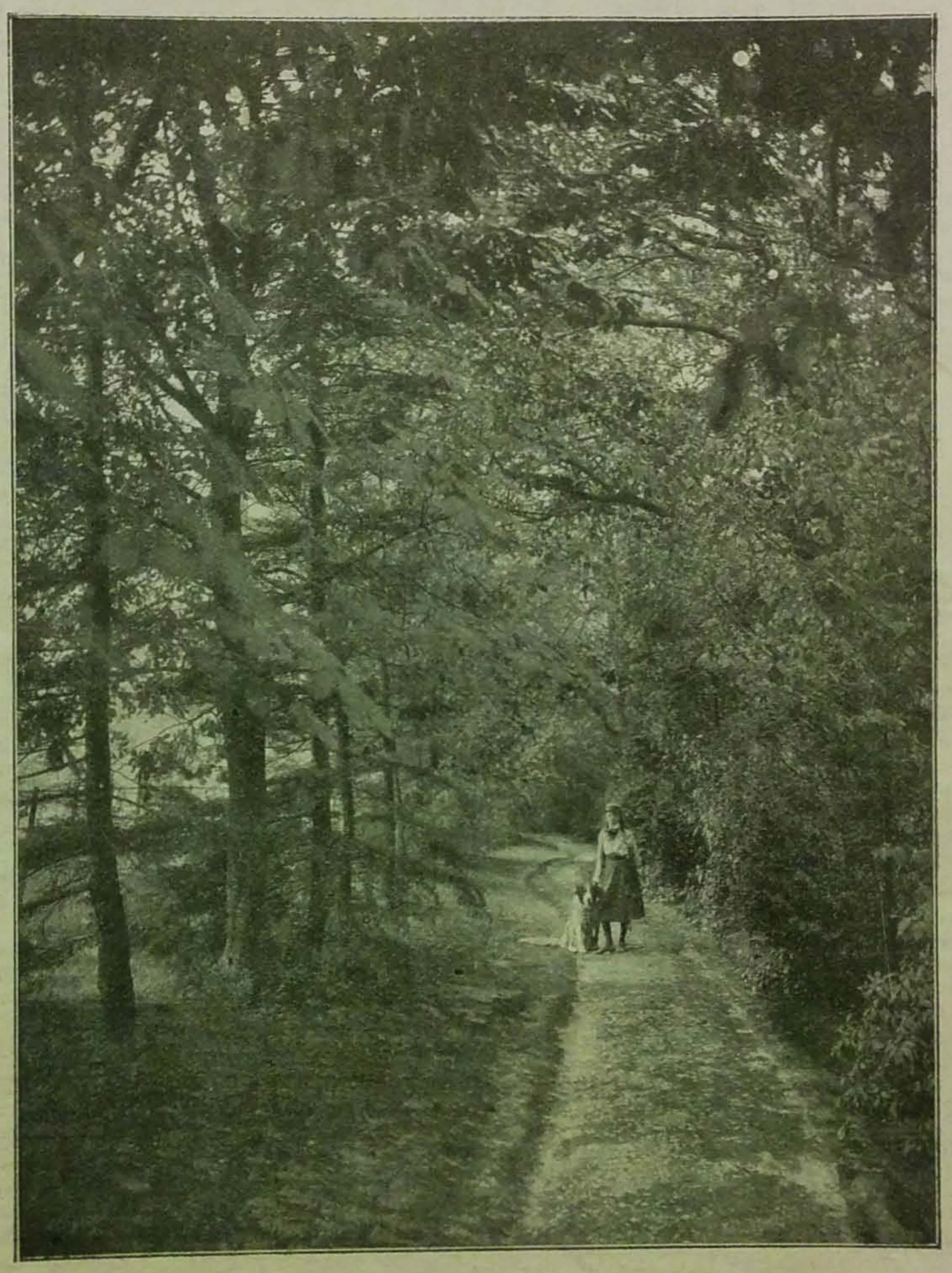
"Cool right through. They are all grown in 'twenty-four pots,' and make a fine display, the foliage being specially good."

"You have a number of Chrysanthemums still in flower."

"They are only a few out of the seven hundred large-flowering plants, but you may care to have their names. The six in flower are Winter Cheer, Madame Charvet, Queen of Market, M. Panckoucke, Princess Victoria, and Valerie Greenham. For decorative purposes, we put the plants all round the sides of two houses, which for this purpose are converted into one, with a bank in the centre. Some are stood on the stages, and tied on to the wires, so that they hang down."

"When was your Muscat house planted?"

"Nearly three years ago. The border is entirely inside. The Peach house contains a tree of Violette Hative, which was planted from twenty-five to thirty years ago, from which we get marvellous crops. The other varieties are Dymond, Hale's Early, Crimson Galande, and Alexander Noblesse. In this cold house are several plants of Broccoli in pots. These are lifted from outside as soon as they show their heads, and finished off. This is really a capital way of protecting them. The variety is Cuthbert's Winter."



A WALK IN THE BEAUTIFUL GROUNDS OF LITTLE HEATH WOOD, POTTERS BAR.

"How long has your gardening career lasted, Mr. Newton?"

"All my life. I started under my father on a large estate in the Midlands, and was subsequently apprenticed at the nurseries of Messrs. Phippens (in Reading), for three years. I was next for some time in Finsbury Park, and then came here. I have been at Little Heath Wood altogether for seventeen years. My employer takes a great delight in exhibiting, and helping others to do so. Through her kindness, the grounds are thrown open in summer to the public, and also in autumn, when the Chrysanthemums are in bloom."

ALFRED WILCOX.

## French Garden Work.

SNOW, hail, frost, and the deadly east wind have all combined to baffle us in our "planting out" work this week, but intensive culture under our system is top dog at that game "all the time," as the comprehensive Yankee has it.

We shall be busy among the cloches for a few days. Under these we put seedling Cauliflowers in the one instance, and sturdy growing Cos and Cabbage Lettuce in the rows where the Carrots are shyly peeping out of their snug quarters, and wondering, as they survey the snow outside, lying thick around the base of the cloches, what on earth they are doing in such untoward circumstances, and doubtless dreading what would happen if by any chance Jack Frost should get his cold finger inside for one short moment!

We give abundant ventilation to these growing plants, and only cover with mats at night in the severest weather.

Melons are coming along in a special nursery constructed for them. This consists of a hotbed two feet high, made of long straw manure only. The seeds are sown five in a pot, which is then plunged to the rim in the hotbed until germination takes place. The hotbed, of course, is covered either by cloches (which enclose the seed-pots), or by a 12-ft. by 4-ft. 6-in. frame—preferably the latter. Keep lights of these beds close until the seedlings show through, then give ventilation warily, and gradually bring on for planting in permanent quarters when in second leaf.

Seeds of Tomato, Cauliflower (for autumn and early summer), Sprouts, Lettuce, etc., are being sown in shallow boxes and under cloches.

All our crops are showing finely, and promise well, notwithstanding the terrific weather prevailing.

WILLIAM WICHERLEY.

THE Granadilla of commerce is the fruit of one of the finest of all species of the Passion-flower — Passiflora quadrangularis.

FOR potting, coarse or "sharp" sand should be employed, but, for propagating purposes, fine sand is best, yet it should not be too fine or "floury."

THE value of some old mortar, plaster, or something of the kind in potting plants can scarcely be over-estimated. It has been used and recommended by Chrysanthemum growers for some years, but it is now used for many other plants, instead of sand. It not only provides a principle—lime—that most plants enjoy in a mild form, but it also keeps the soil sweet and improves the drainage, and thus does good all round. It should be roughly crushed and mixed with the soil.

# THE GARDENS OF THE DUKE OF WELLINGTON.

## Interview with Mr. A. G. Nichols, at Stratfieldsaye, Hampshire.

By the courtesy of the Duke of Wellington, I spent several hours of a pleasant October day in the gardens at Stratfieldsaye, the magnificent gift of the nation to the Iron Duke in 1815. On my arrival at Mortimer Station, I drove through typical scenery to the historic seat inseparably associated with the name of England's most famous statesman, and proceeded at once to the pleasure grounds, where I was met by the gardener, Mr. A. G. Nichols. The

STRATFIELDSAYE.

trees, and the one planted by the late King Edward—which you will see later—was sixty-three feet high, with a girth of six feet nine inches; the other, planted by Queen Alexandra, being sixty feet high, and six feet round.

"But," continued Mr. Nichols, "the Wellingtonia opposite to that planted by Queen Alexandra dates from April 24th, 1857, and was one of the first introduced into England. It was planted by Elizabeth, Duchess of Wellington. It may interest you to know that the Willows in the locality were cuttings from the Willow on Napoleon's tomb in St. Helena. They were planted seven years ago, and some of them are stirring."

"The present Duke, I gather, takes a special interest in the trees?"

"Yes, and when he is at Stratfieldsaye, he spends a good deal of his time in this part of the grounds. Amongst other notable specimens are Abies Douglasi, Abies canadensis, and an Oriental Pine, Abies orientalis, all feathered down to the ground."

"What is the nature of the soil?" I enquired, after we had inspected a summer-house made in 1846 of Hazel, with designs in panels, and a pebbly floor.

"It is very stiff—a stretch of London clay. The river Loddon runs through the park. It is spanned by two bridges, and there are plenty of fish in its waters. In the spring there are thousands of bulbs in the grass, which we do not mow until the autumn."

### The Terrace Bedding.

Walking in the direction of the mansion, I observed a bed of Broom, with Michaelmas Daisies and Iris in front; a pretty corner with flowering shrubs, such as Lilacs and Syringas, and clumps of Rhododendrons. I mentioned peat.

"Rhododendrons will not flourish in this soil without peat"; and, by way of illustration, Mr. Nichols called my attention to a clump in which the plants were in obvious distress, while close to it was another with a number of plants making rapid growth, and added, "In the former case, peat was not used, and in the latter case it was. Then, there are the two large beds of named Rhododendrons nearer the house, with Montbretias in front. Before we deal with the terrace bedding, you may like to know that the present slopes were not taken in from the park until the days of the third Duke of Wellington."

"The general effect of the combination is singularly effective, and is apparently greatly accentuated by the wonderful display of pink."

"You mean the Mesembryanthemums. The variety is spectabile. I have had it for three years, and start it freely from cuttings. There is no difficulty in obtaining plants in the spring. The Mesembryanthemums began to bloom in July, and have been improved by the recent dry weather. Two or three degrees of frost do not affect them, and they are not easily cut off."

"There are eight beds in addition to the centre?"

"Eight on either side. With the Mesembryanthemums in four, we combine Tricolour Geraniums, and an edging of white Veronicas. In the other four beds are Geranium Paul Crampel, a mass of red. The centre consists of Fuchsia Mrs. Marshall, which are all lifted and stored in the winter, cut back and planted out in the spring. There are eight beds of Antirrhinum Sutton's Carmine Pink, mixed with Bijou Geraniums, edged with Heliotrope Lord Roberts. Then there are twelve specimens of Cupressus Lawsoniana erecta viridis, edged with Marigold Legion of Honour, in the round beds."

"And the long beds on either side of these?"

"The groundwork is Geranium Paul Crampel; Abutilon Thompsonii are used for dot plants, and both are surrounded by seedling Pentstemons, Sutton's Crimson Pink. The points of the design are filled in with Ageratum Imperial Dwarf, edged by white Veronicas. Two other beds consist of Geranium Charles Turner as groundwork and as standards; and two more of Madame Thibaut. There remain the four beds filled with Geranium Malvern Beauty, a variety which stands wet weather well."

"You are fond of Veronica for edging?"

"We use so much of it because the hares and rabbits in the park do not like it. Also, it is

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quite hardy. We never let it bloom. The vases on the terrace are filled with the Lemon-scented Verbena, Aloysia citriodora."

"The mansion, of course, does not lend itself to decoration by creepers?"

Single Chrysanthemums for the Conservatory.

"No, it has always been the bare flue conservatory, which we are now entering, is full of Chrysanthemums. We only grow them in bush form for cutting for house decoration. There are about five hundred in all."

"Which do you consider some of the best bush varieties?"

"Mrs. Fogg, Source d'Or, Winter Cheer, Western King, W. Stevens, Madame Oberthur, Framfield Pink, Glitter, F Pilian, Violet Lady Beaumont, and Lizzie Adcock. The favourite colours are bronze, pink, white, and yellow. As to Singles, the pinks include Ladysmith, Edith Pagram, Jessie Langers, Emily Wells; the white, Earlswood Beauty, Flo Robinson; the reds, David Winsor; the yellows, Mrs. R. W. Parkinson, Miss E. Terriss, Rosalind, and Pretoria. Other varieties are Mrs. Annie Holder (cream) and Mary Anderson (blush)."

On the other side of the mansion are more grand specimen trees, one being a splendid example of Nyssa Bipleria, a native of North America, happily protected by a tall Cedar. Opposite it on the lawn, stands a grand old Tulip tree, and close by the Wellingtonias planted by King Edward, while further on is a giant Fern-leaf Beech (Fagus asplenifolia), a beautiful Liquidambar styraciflua, and Abies in variety. Then, passing through another avenue of Yews and Oaks, we proceeded to the houses in the vicinity of Mr. Nichols' own residence.

A Favourite Flower.

Before entering the Cucumber house, I stopped to admire the fine flowers of Hedychium coronarium which grows up its banks.

"It is a speciality of the Duchess," said Mr. Nichols, "and the temperature in which we grow the Cucumbers suits it excellently. The best varieties of Melons are grown, as plants in the same houses as fruit, and neither appear to suffer. The Orchids are a useful collection grown only for cutting purposes, and embracing Cypripediums and Dendrobiums.

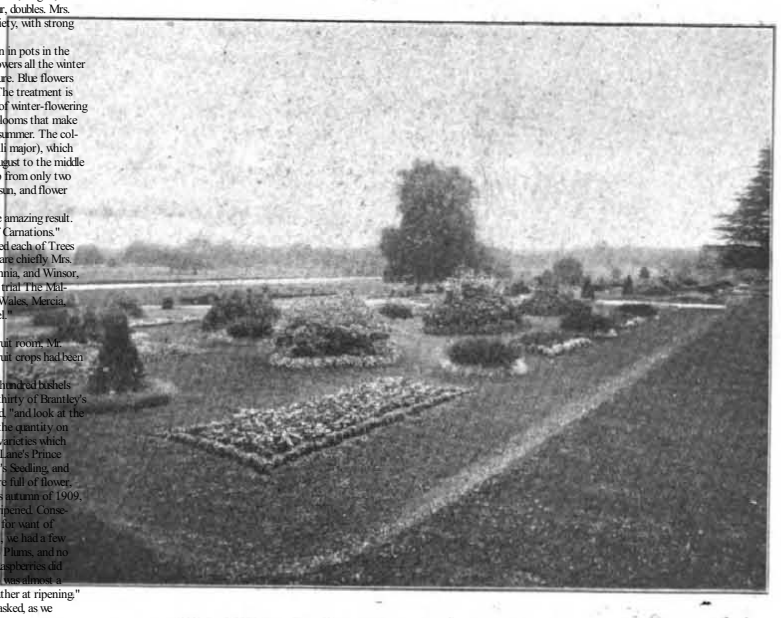
Agathæas and Nerines.

"Please point out specially anything not, perhaps, ordinarily grown."

"Everyone does not grow Agathæa cœlestis, a beautiful blue flower, with yellow centre, for Avenue of Wellingtonias at Stratfieldsaye. Other plants are Arum Lilies, Coleus thyrsoideus, Gardenias, Euphorbia jacquiniæflora, Poinsettias, Begonia Gloire de Lorraine, and the variety The King.

"Do you go in largely for Violets?"

"There are forty lights and about a thousand plants, which are grown outside, and then



The Terrace Bedding at Stratfieldsaye.

winter blooming. It is grown in pots in the summer out of doors, and flowers all the winter in an intermediate temperature. Blue flowers are pretty for the corridor. The treatment is practically the same as that of winter-flowering Geraniums; we cut off any blooms that make their appearance during the summer. The collection of Nerines (Fothergilli major), which flower from the middle of August to the middle of September, was worked up from only two pots. The bulbs ripen in the sun, and flower before the foliage comes."

"I congratulate you upon the amazing result. You have also a fine show of Carnations."

"We grow about three hundred each of Trees and Malmaisons. The Trees are chiefly Mrs. Lawson, Enchantress, Britannia, and Winsor, but we have a few others for trial. The Malmaisons include Princess of Wales, Mercia, Maggie Hodgson, and Florizel."

Scanty Fruit Crops.

Passing into the capacious fruit room, Mr. Nichols remarked that the fruit crops had been scanty.

"I have had upwards of two hundred bushels of Apples in this room, and thirty of Bramley's Seedling alone," he continued, "and look at the shelves now; you can count the quantity on your fingers. The only four varieties which have done well this year are Lane's Prince Albert, Lord Derby, Bramley's Seedling, and Stirling Castle. The trees were full of flower, but, owing to the wet, sunless autumn of 1909, the wood was insufficiently ripened. Consequently, the flowers dropped for want of maturation. As to other fruit, we had a few Pears and a few Apricots; no Plums, and no Currants. Gooseberries and Raspberries did well, but the Strawberry crop was almost a failure, owing to the wet weather at ripening."

"What about Tomatoes?" I asked, as we entered the early Vinery.

"They are all grown under glass, and we get good crops. Sutton's Eclipse is the best all-round Tomato, and Sutton's Ai and one or two other varieties are grown. The Grapes here are Black Hamburgh and Foster's Seedling. Muscats are our principal Grape, and occupy

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one house entirely, with the exception of one end of Prince of Wales. We have lately converted a house, previously full of Lady Downe, into another Muscat house, and in this Tomatoes (Princess of Wales) are grown in pots. All the Tomatoes are grown in boxes or pots."

"Do you cut the Camellias in the greenhouse?"

"Yes, in long sprays. There is a batch of Amaryllis ripening in this house, and Bougainvillea glabra flourishes on the roof. This is practically a cold house, and we transferred the Bougainvilleas, which did not do well in a warm house, with the best results."

Figs in Quantity.

"Can you grow Figs in the early Peach house?"

"We grow them in pots and tubs in various places, and there is also a Fig house, planted in 1857, with four trees of Brown Turkey, which still yields two crops. The other varieties are Violette Sepor, White Ischia, Osborne's Prolific, Bourjasotte Grise, Early Violet, Pingo de Mel, and Brunswick. The Peaches are grown in this case, in which we get any quantity of fruit. We keep it as cold as we can in order to retard the blossom of the Peaches. In the borders outside, early Potatoes and Cabbages are grown."

"I have not seen any Roses."

"We are just going in the Rose garden, which is only used for cutting. The Roses are all

LILIUM GIGANTEUM AT STRATFIELDSAYE.

mixed, and are allowed to grow naturally. They are edged with Violas Admiration, Mauve Queen, Purple Queen, and Golden Sovereign. Violas and Roses do extremely well together, and I wonder that they are not more often combined. The Rose garden is surrounded by Apple trees, and under a Spanish Oak just outside in the park, is the grave of the Iron Duke's old charger, Copenhagen. But now you must see the American garden."

**The American Garden.**

"What are its features?"

"In spring, Azaleas, Rhododendrons, and Kalmias are the great feature; and, as you see, the scarlet leaves of the Azaleas, even in the autumn, are extremely decorative. The beds with the Cupressus in the centre include double rows of Geranium Golden Harry Hieover, and double rows of Lobelia Catherine Mallard. There are three or four kinds of Water Lilies in the water, with the fountain in the middle. The bed of sweet-scented Verbenas is rather a feature."

"How do you treat them?"

"We cut back the stems to eight or nine inches, cover them with dry leaves, and put Pea sticks round them to keep the leaves from flying away. The sticks are removed in April, and the plants cut down to the ground like Osiers. Then they grow up to four or six feet high."

"What are your chief varieties in your two herbaceous borders?"

"Delphiniums, Pæonies, Helianthemums, and Centaureas. As to other flowers, about half a score varieties of Border Carnations are grown, and annuals in large quantity and variety. We keep a number of beds full of flower for the sole purpose of cutting, and they include English and Spanish Iris, Pentstemons, Chelones, Anemones, Marguerites, and Stocks."

**The Orchard.**

Before we concluded our inspection with a stroll through the orchard, Mr. Nichols mentioned that he had tried a great many Strawberries, and now relies mainly upon Royal Sovereign for pots, and Sir Joseph Paxton for outside, though he also finds Givon's Late Prolific a useful variety. The Pears on the walls include Doyenne du Comice, Beurre Diel, Marie Louise, and Durondeau; and the Apricots are Shipley, Large Early, Hemskirk, Kaisha, and Powell's Late.

"In the orchard," continued Mr. Nichols, "a Lavender walk right through is one of the features; and on either side we grow separately about a dozen varieties of Sweet Peas. A Rose pergola, with Ramblers in variety, and Polyanthus along each side, is another feature. The pergola is seventy-five yards long, and each side is planted with Apples as standards. Many other flowers are grown in various parts of the orchard. Vegetables are grown both here and in the kitchen garden, where, by the way, I think you omitted to notice a wall covered with Morello Cherries and a large Gooseberry cage. Several varieties are grown in this cage, and also on cordons on the wall. They ripen later on the wall."

**The Best Vegetables.**

"With regard to vegetables, I should like any details you care to give me."

"Selection, not collection, is my motto. I do not see the use or need of a vast array of labels in the kitchen garden. At the same time, I believe in giving a fair trial to any novelties, but retaining the old until I have proved the new to be superior. The varieties of Peas in succession are Reading Wonder, Pioneer, Early Giant, World's Record, Centenary, Duke of Albany, Exhibition Marrowfat, Autocrat, and Selected Gladstone. Of Broad Beans, I still retain a liking for the old Early Longpod, with Sutton's Green Giant to follow in succession."

"What about French Beans?"

"I know of nothing to equal Sutton's Superlative as an all-round variety, but I still grow Canadian Wonder, and Hackwood Park Success as a Runner Bean. My favourite Beet is Sutton's Blood-red. The varieties of Broccoli are chiefly Michaelmas White, Autumn Protecting, Christmas White, Snow White, with Late Queen to bring up the rear, that most useful sort carrying us on till the early Cauliflowers are ready. My selection of Cauliflowers consists of Magnum Bonum, Purity, Early, and Autumn Giant. As an ideal variety of Brussels Sprouts, Sutton's Dwarf Gem is to be recommended. Of Cabbages, I grow Harbinger, April, Flower of Spring, and Favourite."

"Do you advocate spring sowing?"

"No. I prefer to leave a portion of the Cabbage stems when cut. These produce, in due season, a second crop of most excellent Cabbages, of better flavour, and better able to stand severe weather. Of Lettuces, I grow Superb White and Mammoth White Cos for summer use; for autumn sowing, Winter White Cos and Stansted Park Cabbage. My favourite Onions are Ailsa Craig and Giant Zittau; and my favourite Seakale, Beddard's Improved, although I still grow the old, ordinary purple."

"You have not mentioned Potatoes or Spinach."

"Having been favoured with opportunities for testing many varieties of Potatoes, my own

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December jo, 1910.
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GARDEN LIFE.
selection for very early work in frames and early borders is Sutton's May Queen. It is a very handsome, clean-skinned tuber, firm in texture, and very early. The other varieties are Sir John Llewellyn, Puritan, Windsor Castle, and Up-to-Date. "With regard to Spinach, I know well from experience how difficult it is to obtain a sufficient quantity during the dull, dreary days of mid-winter, but since I discarded the so-called long-standing winter varieties, and grew only the ordinary round or summer Spinach, I have been free from trouble in that way."
"How long have you been in change at Stratfieldsaye, Mr. Nichols?"
"Ten years. Before I came here I was head gardener for eleven years and a half at Nuneham Park; and previous to that I was foreman at Cliveden for nearly ten years under the late Mr. John Fleming, of 'Spring Gardening' fame, and Mr. Ellam, who brought out Ellam's Cabbage."
"Have you done much exhibiting?"
"When I was at Nuneham I exhibited considerably fruit and vegetables, and took a great many first prizes; and since I came to Stratfieldsaye I have shown at Reading and Basingstoke, with considerable success."
Alfred Wilcox.
Next week's interview will be with a well-known successful amateur exhibitor of Chrysanthemums, Mr. C. Fox, of Richmond Lodge, Tunbridge Wells.
The Peach House.
PEACH and Nectarine trees under glass should be kept very cool during the winter months, until the time for starting them into growth comes round again. Like all other deciduous fruit trees, whether grown out of doors, or otherwise, these subjects must have a period of rest. They ought never to be exposed to a high temperature from the time the leaves begin to drop till forcing begins again in the New Year. Indeed, if the Peach house is empty of Chrysanthemums, Geranium cuttings, and things of this sort, that require a certain amount of artificial heat for their well-being, all ventilators and doors may be permanently open, both day and night, and fires may be altogether dispensed with, unless frost is very severe. A few degrees of frost at this time of year will not harm Peach trees in any way, and will, no doubt, be instrumental in destroying insects; but we think it safest to have a slight circulation of heat when very hard frosts threaten, if only to save the freezing and possible bursting of the pipes. Where heat is necessary to protect such plants as may be housed in the same structure, take care that plenty of air is afforded on all suitable occasions, and that the night temperature does not exceed forty-five degrees.
The Why and Wherefore of Pruning.
The final pruning of Peaches and Nectarines may be taken in hand at any time now, but, before undertaking the work, we must be quite sure that we understand exactly what we are doing, and why we are doing it.
Peaches and Nectarines bloom and fruit upon shoots produced the previous season; that is to say, the buds which were left after disbudding operations early this year, and have since grown into shoots, are the ones upon which we may expect fruit next summer. Bearing this clearly in mind, it is obvious that the more shoots of this class we can tie upon the trellis the more bloom will be produced in the spring. Therefore, take care to preserve enough young growth to fill all available space. But a healthy Peach tree is very prolific in wood, and it is easy for a timid pruner to overcrowd the wires; consequently, the novice requires more definite instructions. Light and air must have free access on all sides to each fruiting growth, and it is quite possible to jeopardise the chances of a crop by retaining shoots too thickly disposed. If disbudding has been inadequately performed in the spring, it will probably be no difficult matter to tie in shoots on some parts of the tree about an inch or so apart. But these would be far too thick. The intervals between each of the current year's shoots should be about four inches at every part of the tree.
Pruning: for Shape.
In pruning away superfluous growth, use a strong, sharp knife, and always make a point slightly slanting cut, cleanly sever the branch. Remove any dead branches of older growth by means of a small saw, carefully pare the wound smooth with a pruning knife, and apply a coat of Stockholm tar or clay, which acts as a styptic.
Cleaning: and Tidying-up.
After pruning the trees, clear off all rubbish from the border and burn it. The next step is thoroughly to wash the glass and woodwork with hot water containing a strong solution of soft soap. Every tie should be cut from the wires, and the branches of the trees loosely drawn together in bundles, and secured with string, to facilitate washing operations through the trellis-work. The trees themselves should
Peachâ€" Princess of Wales.
of retaining the shoot springing from the base of last year's branch, in preference to any other on the same growth. By following this plan, the tree is kept a good shape, without any bare, unsightly portions about the limbs.
It generally happens that, after the old fruiting wood has been cut cleanly out â€" and this should have been done immediately after the gathering of the crop â€" one basal shoot alone is needed to take the place of the removed parent growth. The grower must judge for himself as to when this rule does not apply, as, for instance, when the removal of a dead branch leaves more space to be filled up.
In pruning, place the knife on the underside of the growth, close to the junction of the shoot to be retained, and with one firm, upward, afterwards be well washed in a rather hot solution of Gishurst Compound, at a temperature not lower than one hundred and twenty degrees. All parts of the branches and trunks must be thoroughly wetted and lathered. The work is best performed with a large new paint-brush—there is then little danger of injuring the buds, if ordinary care be taken.
Should insect pests have been very numerous during the past season, dress the trees two or three times in the manner indicated, allowing each application time to dry. It is a good plan to dress the wires and their supports with paraffin before tying the branches again into position. Rake off all loose material from the border and continue to maintain cool conditions. J. E. S.

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## The Why and Wherefore of Pruning.

The final pruning of Peaches and Nectarines may be taken in hand at any time now, but, before undertaking the work, we must be quite sure that we understand exactly what we are doing, and why we are doing it.

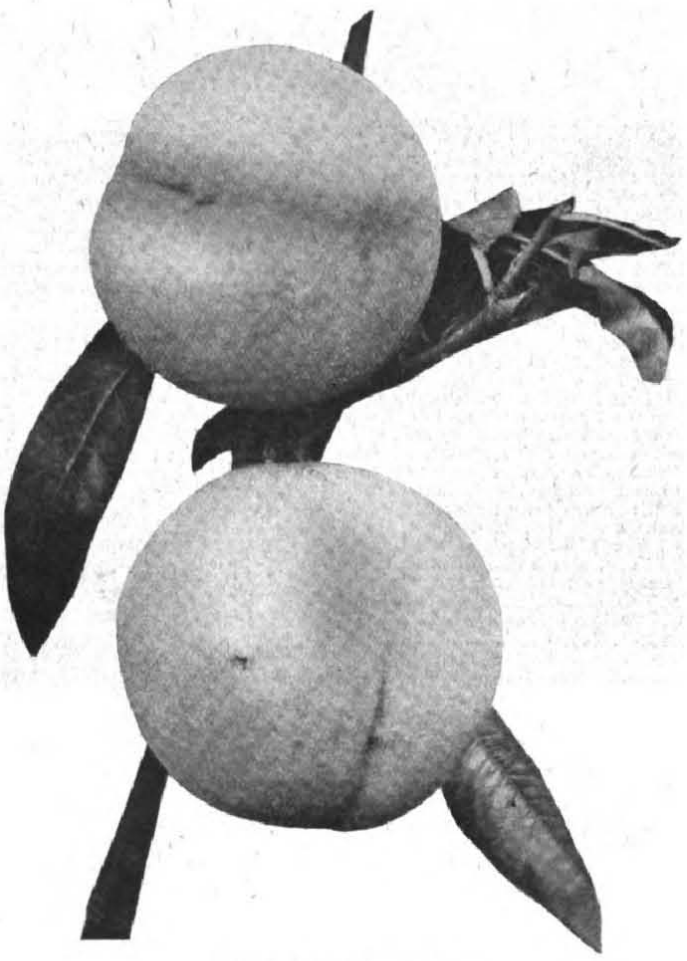
Peaches and Nectarines bloom and fruit upon shoots produced the previous season; that is to say, the buds which were left after disbudding operations early this year, and have since grown into shoots, are the ones upon which we may expect fruit next summer. Bearing this clearly in mind, it is obvious that the more shoots of this class we can tie upon the trellis the more bloom will be produced in the spring. Therefore, take care to preserve enough young growth to fill all available space. But a healthy Peach tree is very prolific in wood, and it is easy for a timid pruner to overcrowd the wires; consequently, the novice requires more definite instructions. Light and air must have free access on all sides to each fruiting growth, and it is quite possible to jeopardise the chances of a crop by retaining shoots too thickly disposed. If disbudding has been inadequately performed in the spring, it will probably be no difficult matter to tie in shoots on some parts of the tree about an inch or so apart. But these would be far too thick. The intervals between each of the current year's shoots should be about four inches at every part of the tree.

### Pruning for Shape.

In pruning away superfluous growth, use a strong, sharp knife, and always make a point slightly slanting cut, cleanly sever the branch. Remove any dead branches of older growth by means of a small saw, carefully pare the wound smooth with a pruning knife, and apply a coat of Stockholm tar or clay, which acts as a styptic.

### Cleaning and Tidying-up.

After pruning the trees, clear off all rubbish from the border and burn it. The next step is thoroughly to wash the glass and woodwork with hot water containing a strong solution of soft soap. Every tie should be cut from the wires, and the branches of the trees loosely drawn together in bundles, and secured with string, to facilitate washing operations through the trellis-work. The trees themselves should



Peach—Princess of Wales.

of retaining the shoot springing from the base of last year's branch, in preference to any other on the same growth. By following this plan, the tree is kept a good shape, without any bare, unsightly portions about the limbs.

It generally happens that, after the old fruiting wood has been cut cleanly out—and this should have been done immediately after the gathering of the crop—one basal shoot alone is needed to take the place of the removed parent growth. The grower must judge for himself as to when this rule does not apply, as, for instance, when the removal of a dead branch leaves more space to be filled up.

In pruning, place the knife on the underside of the growth, close to the junction of the shoot to be retained, and with one firm, upward, afterwards be well washed in a rather hot solution of Gishurst Compound, at a temperature not lower than one hundred and twenty degrees. All parts of the branches and trunks must be thoroughly wetted and lathered. The work is best performed with a large new paint-brush—there is then little danger of injuring the buds, if ordinary care be taken.

Should insect pests have been very numerous during the past season, dress the trees two or three times in the manner indicated, allowing each application time to dry. It is a good plan to dress the wires and their supports with paraffin before tying the branches again into position. Rake off all loose material from the border and continue to maintain cool conditions.

J. E. S.

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Oxford Dictionary of National Biography

**Nicholson, George** (1847–1908), *gardener and botanist*
by G. S. Boulger, *rev.* Ray Desmond
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**Nicholson, George** (1847–1908), gardener and botanist, was born at Ripon, Yorkshire, on 7 December 1847, the son of James Nicholson, gardener, and his wife, Hannah, *née* Burr. Initially trained under his father, he then worked for some time in the gardens of Messrs Fisher and Holmes at Sheffield, before spending two years at the municipal nurseries of La Muette, Paris. On his return to England he worked at the nurseries of Messrs Low at Clapton. In 1873 he was appointed clerk to John Smith, the curator at Kew; in 1886 he succeeded Smith as curator. In 1875 he married Elizabeth Naylor Bell; she died soon after, leaving him a son who become an engineer in the Royal Navy. Nicholson retired owing to ill health in July 1901, but continued his botanical researches at Kew as far as his strength allowed.

A fluent speaker in French and German, Nicholson paid holiday visits to France and Switzerland, and travelled in Germany, northern Italy, and Spain. He was impressed with the value of a knowledge of foreign languages to young gardeners, and devoted much of his leisure to teaching some of them French. In 1893 he went to the Chicago Exhibition as one of the judges in the horticultural section; there he took the opportunity to study the forest trees of the United States. In 1902, the year after his retirement, he visited New York as delegate of the Royal Horticultural Society to the plant-breeding conference.

Until 1886 Nicholson devoted much attention to the critical study of British flowering plants. His first published work, 'Wild flora of Kew gardens and pleasure grounds', appeared in the *Journal of Botany, British and Foreign*, for 1875. In the same year he joined the Botanical Exchange Club, and to its reports and to the *Journal of Botany* he contributed notes on such segregates as those of *Rosa* and of *Cardamine pratensis*. The 'Wild fauna and flora of Kew Gardens', issued in the *Kew Bulletin* (additional ser. 5) in 1906 was largely his work. Out of 2000 fungi enumerated, 500 were found by Nicholson. His herbarium of British plants was presented, towards the end of his life, to the University of Aberdeen, through his friend James Trail, professor of botany there.

When Sir Joseph Hooker was reorganizing and extending the arboretum at Kew he found an able assistant in Nicholson, who wrote on the genera *Acer* and *Quercus* and twenty articles on the Kew arboretum in the *Gardeners' Chronicle*, during 1881–3. A valuable herbarium which he formed of trees and shrubs was purchased by the Bentham Trust in 1889 and presented to Kew. His *Hand-List of Trees and Shrubs Grown at Kew* (1894–6) demonstrated his knowledge of this class of plants. Nicholson's *magnum opus* was *The Illustrated Dictionary of Gardening* (4 vols., 1884–7; French edn, 1892–9; two supp. vols., 1900–01). This standard work of reference, most of which was not only edited but also written by Nicholson, became the forerunner of the Royal Horticultural Society's *Dictionary of Gardening*. Although an expert on oaks and maples he never realized his ambition to write a standard work on hardy trees and shrubs.

Nicholson's gentle, unselfish character, together with his reputation as a horticulturist, made him the obvious choice for first president of the Kew Guild, which was founded in 1893. He was elected an associate of the Linnean Society in 1886, became a fellow in 1898, and was awarded the Veitch memorial medal of the Royal Horticultural Society in 1894, and the Victoria medal of honour in 1897. In 1901 Udo Dammer named a Central American palm *Neonicholsonia georgei* and C. E. Salmon named a moss, found on a tree-fern at Kew, *Fissideus nicholsoni*. An athletic man, and a keen mountaineer, Nicholson died of heart trouble at his home, 37 Larkfield Road, Richmond, on 20 September 1908. His remains were cremated. The Royal Horticultural Society founded the Nicholson prize, awarded to students sitting the Wisley diploma examination, in his honour.

G. S. BOULGER, *rev*. RAY DESMOND

**Sources** *Bulletin of Miscellaneous Information* [RBG Kew] (1908), 422–7 · *Journal of Botany, British and Foreign*, 46 (1908), 337–9 · *Gardeners' Chronicle*, 3rd ser., 44 (1908), 239 · F. A. Stafleu and R. S. Cowan, *Taxonomic literature: a selective guide*, 2nd edn, 3, Regnum Vegetabile, 105 (1981), 740–42 · *CGPLA Eng. & Wales* (1908)
**Archives** RBG Kew | U. Aberdeen, plant specimens · U. Glas., plant specimens
**Likenesses** drawing, repro. in *Garden*, 48 (1895), frontispiece · photograph, repro. in E. Nelmes and W. Cuthbertson, *Curtis's Botanical Magazine dedications, 1827–1927* (1931), 302
**Wealth at death** £2020 5*s*. 10*d*.: probate, 29 Oct 1908, *CGPLA Eng. & Wales*

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G. S. Boulger, 'Nicholson, George (1847–1908)', rev. Ray Desmond, *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/35228, accessed 28 Nov 2014]

George Nicholson (1847–1908): doi:10.1093/ref:odnb/35228

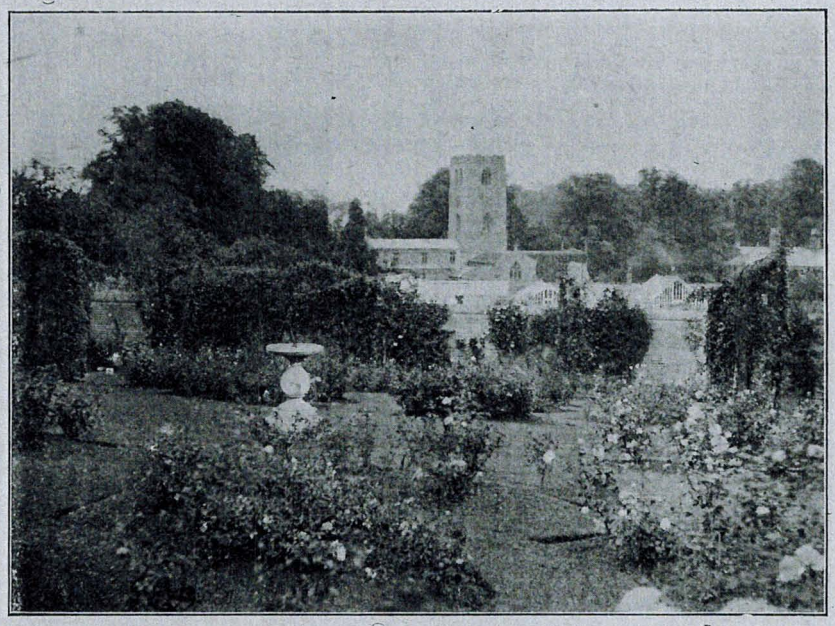
# THE GARDENS OF THE RIGHT HON. SIR HERVEY BRUCE.

## Interview with Mr. Robt. H. Nicol, at Clifton Hall, Nottingham.

WITH the courteous acquiescence of Sir Hervey and Lady Bruce, I visited in May the gardens of Clifton Hall, one of the most historic seats in the Midland counties. For centuries, the name of Clifton has been one to conjure with in Nottingham, and Sir Robert, the ninth and last baronet, was the idol of the people. The present lord of the manor is the son of Sir Robert's sister, under whose auspices the beautiful place maintains all its traditional charms. So far as the gardens are concerned, there have been developments and improvements in recent years, which Mr. Nicol, the head gardener, pointed out to me as we proceeded. The mansion itself faces the Trent, standing high above it, and though in one direction the prospect includes the factories of Beeston, in others it is quite unspoiled; while in the grounds and the splendid park and woods there is nothing to impair the tranquility of the scene.

The fine scheme of the flower beds, with their borders of grass, and the fountains in the centre, at once attracted my attention. There are upwards of thirty combinations, and to relieve the flatness, Box and Yews are employed as dot plants.

"In four beds," said Mr. Nicol, "there were, for spring, Wallflowers and white Saxifrages; four with Viola Emperor William and Mammoth Parisian, and earlier Tulips of two varieties; four with double Arabis flore pleno, with Tulips Van Vondel; four with Myosotis Sutton's Royal Blue, and Tulips Prince of Asturias; four with double Wallflowers mixed, white Polyanthus, and a border of Daisies. These are duplicated."



THE ROSE GARDEN, CLIFTON HALL.

### Summer Combinations.

"And the summer combinations?"

"In four of the beds there are Tuberoses, Begonias in the centre, Iresines, Pyrethrum Golden Ball, and Lobelias; another combination consists of Geranium Douglas Pearce, edged with dwarf blue Lobelias. There are four beds of white Geranium Mrs. Perry, also edged with dwarf blue Lobelias; and of the remaining four two are filled with Alternantheras and Echeverias, and two with Mesembryanthemums in variety."

"How are the four corner beds made up?"

"Chiefly with tall plants, such as Abutilon Thompsonii, Geraniums in variety, Yuccas, and Lobelia cardinalis, with an Agave on each side."

"Then, there are the beds on the raised ground?"

"In these, Wallflowers were largely used. The other four beds were composed of Myosotis and Tulips Cottage Maid and Proserpine. Heliotrope Lord Roberts takes the place of the mixed Wallflowers in summer; four beds of Wallflowers are succeeded by Ivy-leaved Geraniums, Madame Crousse in two, and in the other two with Geranium Acis, edged by Lobelia Royal Purple; the other four are followed by Geranium Henry Jacoby, edged with Geranium Cripps' compacta; and where Myosotis was the chief element, there is Ricinus Gibsonii in two beds, and Abutilon Thompsonii in two, with Iresines below. For edging, we use a great deal of Alyssum, but it is varied a little."

"You must get a grand display of colour later on."

"The number of plants is very great. We put in three thousand white and scarlet Geraniums alone. The colour predominating in summer is red, and in spring yellow and blue are to the fore. The bed below, close to the boundary overlooking the Trent and the Yew battlements, has Tulip Picotee and Polyanthus in spring, for which Cannas are substituted in summer."

Passing into the noble conservatory, which commands a pretty view of the slopes and the old chapel, the feature most in evidence was a striking combination of Calceolarias, all good, and yet not two flowers alike.

"How do you manage to get such charming blooms?" I enquired.

"The methods of cultivation are quite simple. We sow the seed the last week in May, and get the plants into 5-in. pots in October. For the compost, fairly light soil is used. While we take great care to shut out the frost, Calceolarias will not stand fire heat."

"Their value for colour in a conservatory of size is certainly remarkable, and I presume that they are not expensive to grow?"

"The cost of the whole of these was eighteen pence."

"The Camellias are planted in the conservatory?"

"Yes, and the Brugmansia, which always flowers twice a year, and sometimes thrice. We cut it back, and wash it over like a Vine. The pure white flowers are very fragrant. The Phœnix dactylifera Palm is rather a fine specimen, over forty years old, and the Latania is very old."

"You might mention some of the other occupants of the stage."

"Schizanthus, Spiræas in variety (including Queen Alexandra), Indian Azaleas in pots, and Pelargoniums. Speaking of Schizanthus, you may observe that it harmonises with the Calceolarias. I find that it has the advantage of never clashing with any other flower. In the centre, Liliums longiflorum and japonicum make a nice group, and growing on the wall are Asparagus plumosa, Habrothamnus, and Bougainvillea."

### Bananas for Foliage.

"Near the fountain, with its pretty figures of a boy and girl holding umbrellas, I see that there are a number of fine Bananas."

"They are non-fruiting, Musa ensete, and are grown for the sake of the foliage. Here are two of the American Agaves, which hereafter go out of doors. They have never flowered. As probably you know, if they flower they die."

Leaving the conservatory, we approached the Star Terraces, one of the most picturesque features of Clifton. The only evidence of the old wall which formerly enclosed them is an elegant brick column dating from the time of Queen Anne.

"The beds on these terraces are star-shaped. We do not fill them in spring, but in summer we have flowers wherever we can get them."

"Does your soil vary?"

"It varies a good deal, but some of the subsoil is very heavy. The beds in the centre are Ivy-leaved Geranium Madame Crousse, with Henry Jacoby and Alyssum below, another combination being Geranium Douglas Pearson and Coleus Verschaffeldtii, edged with Pyrethrum Golden Ball."

"What is the name of the Geranium growing in the vases near the fountain on one of the terraces?"

"Mrs. F. Bartleman; the flower is salmon,

and is useful because of its length. Growing at the base of the fountain are Astilbe Davidii, Saxifrages, and Osmunda Ferns. There are plenty of fish in the water. From this point you obtain a good idea of the extent of the Star Terraces, as they rise tier above tier."

"And also of the Yews."

"Yes, Yews do exceedingly well, and they are numerous, forming in one part an avenue. Laburnums, Chestnuts, Sycamores, Lilacs, Laurels, Hollies, Box, and Retinosporums all seem to find the position of the terraces, which face due north, congenial."

**The Rosery on the Slopes.**

At the summit of the Star Terraces we came suddenly to a lovely croquet lawn, with a pavilion and seats at the side, protected all round by flowering shrubs, and overshadowed at the end by trees. Among the shrubs were a few Rhododendrons in flower and others in bud. Before we descended, we penetrated into the woods beyond, in order to make acquaintance with a giant Larch, which some persons would gladly travel to Clifton to see, and with the Limes. The Rosery is on the slopes, but before entering it, we paused at a little corner with Azalea mollis in flower, and herbaceous varieties coming on. Replying to a question about the formation of the Rosery, Mr. Nicol said,

"It has been made about five years. The Roses on chains, which run all round, covering the wall and the hedges, are Dorothy Perkins, Blush Rambler, Dundee Rambler, Longworth Rambler, Cheshunt Hybrid, Mrs. Flight, Climbing La France, Belle Siebrecht, and Bardou Job. The beds have one variety in each, except that two are filled with Abel Chatenay, and two with Grand Duchess of Luxembourg. Whenever I plant a Rose bed, I make the soil, using turf and manure. Leading out of the Rosery is the herbaceous garden, which was made a year later."

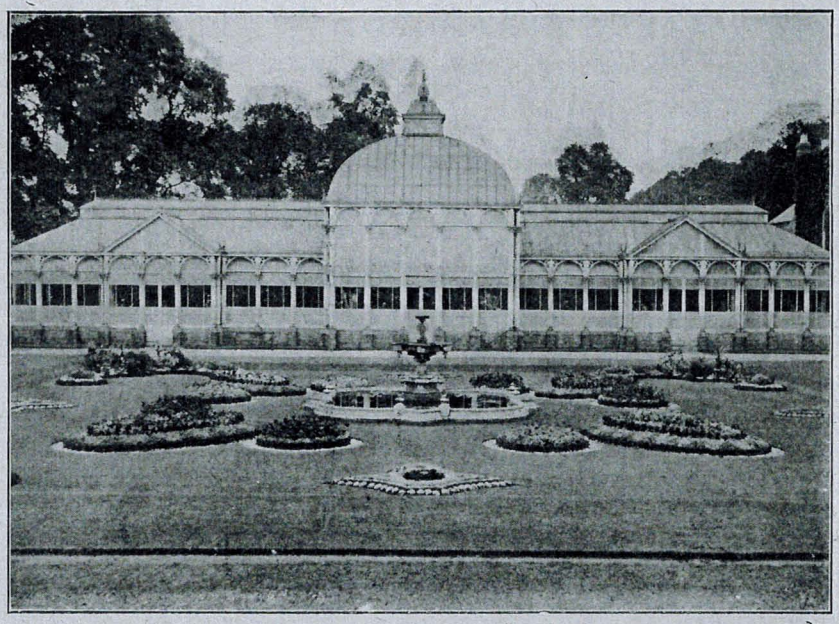
**A September Garden.**

"Is it planted with a special date in view?"

"Yes, for September, the family being away in July and August. We grow Asters, Phloxes, Montbretias, and other plants which flower freely in the latter month. Asters planted in March flower the same year. Just outside the herbaceous garden is a border of flowering shrubs, chiefly Weigelas, Staphyleas, Berberis Darwinii, and Choisya ternata.

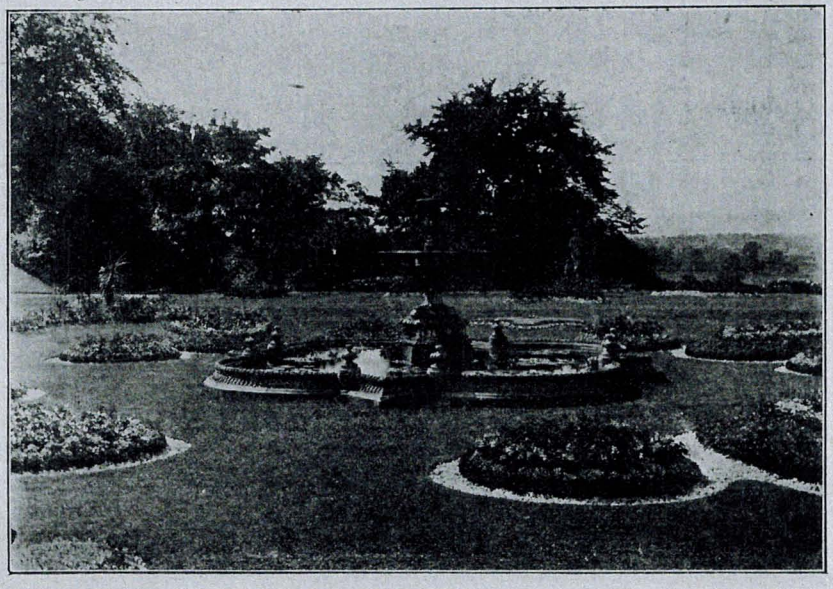
"Two years ago," continued Mr. Nicol, "the walk with the Rose pergola was widened and raised. One side of the walk is confined to herbaceous plants, and on the other are beds of China, Polyantha, Hybrid Perpetual, and Hybrid Tea Roses, while above them, planted in the grass, are some old fruit trees, whose flower is decorative and crops excellent. The Apples include Cox's Pomona, Ribston Pippin, Blenheim Orange, and Lord Lennox."

"Then there is the rockery, with its imposing stonework"



THE CONSERVATORY AT CLIFTON HALL.

"The stone belongs to the locality, and we used an enormous quantity. The rockery was only completed two years ago, and at present the Alpines have not made very great growth. The church which faces the rockery, and is seen from every part of the gardens, dates back before 1200. We supply the flowers for decorating the altar."



THE TERRACE BEDDING AT CLIFTON HALL.

Proceeding to the enclosed kitchen garden, which is remarkable for its sloping beds facing north and south, I enquired whether the vegetables grown on the north side were much later than those on the south slopes.

"There is, of course, a difference, and on the north side we grow such things as Broccoli and Brussels Sprouts, while on the south are the early Cabbage, early Potatoes, and Asparagus. The Asparagus season lasts six weeks, and we never cut any after Peas are ready. We usually begin to pick Peas on June 2nd, and continue until the end of October. On one of the slopes we get a good crop of Red and Black Currants, and of Gooseberries."

"For how many seasons do you keep your Strawberry plants?"

"Two. By means of trenching and manuring heavily, we get very good crops, especially of Viscountess."

"Do you grow all your Apples and Pears on bushes?"

"Most of them, though a few Pears are grown on the east wall."

**Treatment of Loganberries.**

"Is your treatment of the Loganberries and Blackberries, which I see are trained on trellis, identical?"

"We treat them about the same, giving a little manure, cutting back the old wood, and tying in the new. That is all they require."

"You seem to have a good many flowers in the kitchen garden. I suppose they are used for cutting?"

"Mainly, but there are a few in reserve for the flower beds for next year, such as Daisies. The best Border Carnations are Dan Godfrey, Raby Castle, Alice Ayres, and Voltaire, and other flowers in the borders are Trollius europea, Aquilegias, and single Pæonies. Facing my house in the border are Violas, Polyanthus, Myosotis, and Wallflowers, which will presently be succeeded by autumn-flowering varieties."

"Do you grow much fruit under glass?"

"Here is a little cool house in which Peaches are grown to come on after we have done with the outside crop in October. The varieties are Royal George, Princess of Wales, and Golden Eagle. In the frame ground just outside, Violets in quantity are raised. In the frames also, we grow early Potatoes and Kidney Beans."

"I see that you go in for Malmaisons?"

"We have two little houses in which a certain number of favourite varieties are flowered."

**Lettuces All the Year Round.**

"Your Lettuce plants outside look as healthy as your Carnations inside."

"The variety is Hardy Winter, but we have Lettuces all the year round. In the stove, Gloxinias are coming into flower. They are

really only fit for an intermediate house, the absence of which is sometimes a difficulty here. We have a few Orchids, principally Dendrobiums; and Dracænas, Crotons, and Pancratiums are grown for table decoration. Streptocarpus, which flowers all the summer, gives us a useful quantity of bloom."

"What varieties of Tomatoes suit the climate and soil?"

"Dickson's Crimson King and Holmes' Supreme. Some of these are planted in pots, and others in the borders; we ripen the former earlier. The two Melons we prefer are Rich Scarlet Flesh and The Peer. Now there are the Vineries, of which we are entering the latest. The varieties here are Muscats, Gros Colmar, Alicante, Lady Downe, Black Hamburgh, Pearson's Golden Queen, and Barbarossa, which has just started showing this morning."

"When will it be ripe?"

"At Christmas. It has the advantage of being a lovely black Grape, and delightful in flavour. In the earlier Vinery, which was planted thirty years ago, and has borders inside and out, we have Hamburgh and Muscats, with Foster's Seedling ready by the end of June. The early Vinery contains Black Hamburgh only, a Grape which cannot be excelled for early use, and is very reliable for setting and colouring."

"How long does your Grape season last?"

"From early in June to the end of the succeeding March. In the late Vinery alone we cut three hundred bunches."

"Your Peach season also must be pretty lengthy?"

"It lasts from the end of June to October. In the early Peach house, with a fine specimen of Niphetos Rose at the end, the varieties are Royal George and Noblesse, with Nectarines Palmerston, Waterloo, and Lord Napier in pots; and in the mid-season house, Barrington and Royal George, with Nectarines Pitmaston Orange. In the greenhouse, between the Peach houses, are our Tree Carnations, which we have been cutting from September right through the winter."

"How long have you been at Clifton, Mr. Nicol?"

"Four and a half years. I started gardening at Drumlanrig Castle, and from there proceeded to Drummond Castle, Perthshire. But I have spent most of my time in England. I was foreman at Quorn House, Leicestershire, and Beau Manor Park, Leicestershire, and subsequently head gardener at Hull Court, Botley, and Aston Vale, Derbyshire. Then for eleven years before I came here I was in charge of the gardens at Ruddington Hall, Nottinghamshire. I have never gone in for showing." ALFRED WILCOX.

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THE gardens of Lord Rendlesham, at Rendlesham Hall, Suffolk, will be described next week.

DURING the summer months, particularly when the weather is as glorious as it has been this season, most greenhouse plants will be benefited by being placed outside, on a bed of ashes, there to complete their growth, and perhaps set their buds. By this means the thorough ripening of the wood is ensured. Those plants which bloom early in the year, however, should have finished growing before going outside. Water must be given very carefully, and hard water avoided.

# Making a Japanese Garden.

X.—HYDRANGEAS.

HYDRANGEAS are essentially a part of the complete Japanese garden, and English garden lovers can contemplate with pleasure and profit the claims of the Hydrangea as a decorative garden subject. It is not always that the Hydrangea is studied with a view to gaining its best effects, but those who can look upon a garden from a Japanese point of view will realise the value of the Hydrangea when well grown, and in a carefully studied position.

The Japanese regard the Hydrangea from two points, viz., its colour effect as rendered by the blossoms, and the bold, massed greenery of the luxuriant leafage. Thus, Hydrangeas must necessarily be planted so as to ensure a vigorous, healthy growth, and to show off the beauty of the blossoms to the greatest advantage.

Two thoughts regarding this subject impress themselves upon my mind. One is the value of Hydrangeas for waterside planting, and the other is their value for associating with stonework (either natural or worked stone), especially that of a greyish hue. For the waterside, I would urge the planting of a few bold masses, almost on the water's edge, a position they will revel in. Each group should consist of one variety only, as this gives the best effect. A grouping around a tall stone lantern will prove decidedly pleasing, or they can make a break in places, between a broad stone pathway and the waterways.

A bold rock garden also shows off the Hydrangeas splendidly, and they gain in effect when backed by giant rocks, surmounted with the decorative Maples.

THE GARDENER'S HOUSE, CLIFTON HALL.

### Garden Treatment.

For ordinary garden massing, the Hydrangeas are not so well fitted, unless one can plant up a rising slope with them, and so get a picture from which the flatness and ultra heaviness is quite dismissed. If one is forced to employ them in the flat garden, without the help of waterways or stonework, I should urge the planting of the tall-growing paniculata in preference to the hortensis group.

And may I ask the reader to bear in mind the fact that the Hydrangea is a gross feeder, and is perfectly at home in a strong, fairly heavy loam. Manure should be freely given, cow manure being very suitable. Burnt refuse, charcoal, wood ashes, etc., are of value for maintaining the colour of the blossoms. In soils devoid of iron, it is wise to add iron filings, and odd pieces of old, rusty iron, to assist in keeping the plants in health. But I do not advise the "faking" with artificials to change the hues of certain varieties. If summer feeding of the Hydrangeas is necessary, cow manure and soot in solution will prove a sterling help.

### Japanese Species.

A word or two concerning the Japanese forms may prove of interest. The common hortensis is not largely grown, but several varieties of it are highly esteemed. Chief among them is acuminata, a distinct deep blue variety of great merit, being without doubt the finest blue form in existence. Aigaku is a fine light blue, of attractive appearance and good habit. Agisai provides very fine trusses of rosy-blue, which under glass often develops into a clear blue, with a white eye—a first-rate form, and very robust. In Shiro-gakuk we get an exquisite variety, with white outer or "guard" petals, and a blue centre. Beni-gaku is a bright rosy variety, very near to the preceding in form; while Shiro-ajisai and Beni-demari are both notable additions to the list.

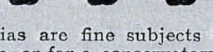
I would also commend to the reader the new rosea, a far finer Hydrangea than the majority grown in England, and the pure white alba, which, unlike some forms, never changes in hue.

### Two Fine Forms.

A good word may also be said in favour of involucrata and involucrata plena, two sterling Hydrangeas, with ball-like heads of blossom, pure white in colour.

Paniculata grandiflora is well known to English readers, and should become increasingly popular; while the floriferous, bushy-growing arborescens, and the climbing Hydrangea scandens, are two notable forms. There are also to be noted Hydrangea virens, a pink-flowered species of medium size, with strangely attractive, fragrant foliage; and the lovely stellata rubra, the exquisite double, bright rosy gem, which is so little seen in England, but which is regarded as a valued subject in Japan.

In conclusion, let me emphasise the importance of waterside planting, for the grand effect obtained by the mirrored reflections of the blossoms in the clear water is worth striving for. Especially would I urge upon southern readers to make a greater use of these first-rate Japanese Hydrangeas P. S. HAYWARD.



THE Luculias are fine subjects for an intermediate house, or for a conservatory. There are only two species in cultivation. L. gratissima is the one usually grown, although L. pinciana in general habit resembles it. The large, ovate leaves are smooth and dark green above, with down on the veins beneath, and also on the branches. The flowers are carried in large cymes, pink or rose, and rather fleshy; they are deliciously fragrant. L. pinciana differs mainly in having white flowers. They bloom throughout the late autumn and winter months.

Felton, Portrait of English Authors on Gardening, 1830



Ornament, has given us Mr. Speechley's sensible letter on the Duke of Portland's Plantations. Mr. Johnson says "he perhaps surpassed every practical gardener of his age."

PHILIP LE BROCQ, chaplain to the Duke of Gloucester, wrote,

1, A Description of Certain Methods of Planting, Training, and Managing all Kinds of Fruit Trees, Vines, &c. London, 8vo. 1786.

2, Sketch of a Plan for making the New Forest, a Real Forest. *Stockdale*, 8vo. 1793.

WALTER NICHOL, whom Mr. Loudon, in his Encyclopædia, calls an author of merit, and informs us that Mr. Nichol, "in the year 1810, undertook an extensive journey through England, for the purpose of visiting the principal seats and plantations, with a view, on his return, to compose the *Planter's Calendar*. This work had scarcely commenced, when he was seized with an illness which carried him off suddenly, in March, 1811." His works appear to be the following:—

upwards of 90; Hunter, who published *Sylva*, at 86; Speechley, at 86; Horace Walpole, at 80; Mr. Bates, the celebrated and ancient horticulturist of High Wickham, who died there in December, 1819, at the great age of 89; Marshall, at an advanced age; Sir Jos. Banks, at 77; Joseph Cradock, at 85; James Dickson, at 89; Dr. Andrew Duncan, at 83; and Sir U. Price, at 83. Mr. Loudon, at page 1063 of his Encyclop. inform us, that a market garden, and nursery, near Parson's Green, had been, for upwards of two centuries, occupied by a family of the name of Rench; that one of them (who instituted the first annual exhibition of flowers) died at the age of ninety-nine years, having had thirty-three children; and that his son (mentioned by Collinson, as famous for forest trees) introduced the moss-rose, planted the elm trees now growing in the Bird-cage Walk, St. James's Park, from trees reared in his own nursery, married two wives, had thirty-five



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The Gardener's Kalendar; or, Monthly Directory of every Branch of Horticulture; 8vo.

The Planter's Kalendar; or, the Nurseryman's and Forester's Guide; 8vo.

The Villa Garden Directory; or, Monthly Index of Work to be done in Gardens, Shrubberies, &c.; 12mo.

Scotch Forcing Gardener; 8vo.

The Practical Planter.

Mr. Johnson says "his works are of the first authority, and rank as the equals of those of Abercrombie, being the result of long practice during an enlightened era of our art."

JAMES MADDOCK, of the Society of Friends, and commercial florist, at Walworth, where, about the middle of last century, he established the florist garden there, now belonging to Milliken and Curtis. He died about 1806. He published the Florist's Directory, and Complete Treatise on the

children, and died in 1783, in the same room in which he was born, at the age of a hundred and one years. Reflecting on the great age of some of the above, reminds me of what a "Journal Encyclopédique" said of Lestiboudois, another horticulturist and botanist, who died at Lille, at the age of ninety, and who (for even almost in our ashes *live their wonted fires*) gave lectures in the very last year of his life. "When he had (says an ancient friend of his) but few hours more to live, he ordered snow-drops, violets, and crocuses, to be brought to his bed, and compared them with the figures in Tournefort. His whole existence had been consecrated to the good of the public, and to the alleviation of misery; thus he looked forward to his dissolution with a tranquillity of soul that can only result from a life of rectitude; he never acquired a fortune; and left no other inheritance to his children, but integrity and virtue."



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## WEEKLY CALENDAR.

| M. D. | W. D. | APRIL 3—9, 1851. | Weather near London in 1850. Barometer. | Thermo. | Wind. | Rain in In. | Sun Rises. | Sun Sets. | Moon R. & S. | Moon's Age. | Clock bef. Sun. | Day of Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Tu | Gooseberry flowers. | 29.684—29.526 | 58—26 | S.W. | — | 34 a. 5 | 33 a. 6 | 8 24 | 2 | 3 28 | 93 |
| 4 | F | Currant flowers. | 29.656—29.420 | 56—42 | S. | 0.08 | 32 | 35 | 9 34 | 3 | 3 10 | 94 |
| 5 | S | Dog Mercury flowers. | 29.556—29.381 | 57—25 | S.W. | — | 29 | 37 | 10 44 | 4 | 2 53 | 95 |
| 6 | Sun | 5 Sun. in Lent. Lady-smock flowers. | 29.609—29.440 | 63—38 | S.E. | — | 27 | 38 | 11 52 | 5 | 2 35 | 96 |
| 7 | M | Cuckoo heard. | 29.514—29.440 | 55—34 | S.W. | 0.06 | 25 | 40 | morn. | 6 | 2 18 | 97 |
| 8 | Tu | Redstart seen. | 29.429—29.346 | 61—31 | S.W. | 0.02 | 23 | 41 | 0 56 | 7 | 2 1 | 98 |
| 9 | W | Tree-Pipit heard. | 29.536—29.459 | 52—42 | N.E. | — | 20 | 43 | 1 55 | 8 | 1 44 | 99 |

We have often wished that there was a law commanding every one who ventured to write a book, thenceforth, to record his birth and parentage, at the commencement of a diary, to jot down in it, from time to time, the particular events of his life, and that when dead, his family should send it to London, to be deposited, and indexed, in an office especially devoted to the purpose, and of much more ready reference than his will would be if enrolled at Doctors Commons. We have so wished, and still wish, because at some period or other, a memoir of every member of the literary fraternity is certain of being inquired for, and, of course, the inquiry is the more general, and the interest more strong, just in proportion to the usefulness or rarity of his works. Yet, how fruitless is our research relative to many of those whose brain-births are amongst the most popular of our literature. Who wrote the *Iron Basilike?* Who composed our *National Anthem?* Who wrote *Thomas a'Kempis?* Are questions as unanswerable, as who was *Junius?* Now, it so happens, that the writer of these weekly notices has a great thirst for the biographies of those who have written upon gardening; and he once had two companions who enjoyed the like unquenchable propensity—he alludes to the late Mr. Felton, and Mr. W. Forsyth. The latter had one of the most extensive private libraries of horticultural literature, perhaps ever collected, and he was most liberal in allowing it to be consulted. He had spared no labour in collecting biographies of the authors of the books on his library shelves. Those biographical collections he left in MS., and we shall be obliged by any one informing us of their fate. Poor Mr. Felton is also dead—and what have become of his large accumulations, illustrative of Shakspere, and the *Portraits of Gardeners?* These are sad remembrances, and painful inquiries, for they remind us of happy meetings that can recur no more; and it was at one of these that Mr. Felton sought from us such little information as we could give, relative to one whom he spoke of as "the best practical writer on Scotch gardening"—Walter Nicol. He was especially anxious to ascertain if a portrait of him existed, of which there is little probability, since all that can be gleaned concerning him are in this brief notice. Even the place and time of his birth are unrecorded, nor is the christian name of his father known to us. The latter was the gardener who planned and executed the grounds of Raith, the seat of Mr. Ferguson, near Kirkaldy, in Fifeshire, and the kitchen-garden of Wemyss Castle, in the same county, the residence of General Wemyss. It is probable that old Mr. Nicol, in the decline of life, became a florist and nurseryman, for in speaking of carnations, Walter Nicol says—"My father cultivated them most eagerly to a very great extent, and with as much success as most people. About the year 1785, he had a most admirable collection, and excelled all his neighbours in the real *Clove Gilliflower.* A year or two afterwards he unfortunately changed the situation of his valuable collection, from the borders in front of an extensive range of hothouses, to several large mounds of soil brought from a field, to be used in composts for melons, peaches, grapes, &c. He had taken some of it for his potted carnations, and found they did remarkably well in it, and so was induced to shift the whole stock. He had not discovered that this soil swarmed with wire-worms, and from their ravages, in two years, he lost three-fourths of his stock. He shifted the remainder back to their original situation, but, unfortunately, some of the field soil had been trenched into the borders, and so, ultimately, was lost his entire collection." We hope this catastrophe will be a warning to our readers, as it was throughout his gardening career to Walter Nicol. He began that career under the tuition of his father, at Raith, but he migrated to England for improvement, and eventually became head gardener to the Marquis of Townsend, at Rainham Hall, in Suffolk, the gardens of which, however, were said to be no evidences of his skill. Returning to Scotland, he succeeded his father as head gardener at Wemyss Castle, where he remained until about 1797, when he settled at Edinburgh, as a garden designer, employing his leisure as a writer on Scotch gardening. In 1798, appeared two editions of his *Scotch Forcing and Kitchen Gardener*, and in the year following, *The Practical Planter*. In 1809, he published *The Villa Garden Directory*, and its fourth edition, dated 1823, is now before us. His *Gardener's Kalendar* appeared in 1810, and his *Planter's Kalendar* in 1812, but this was completed after his death, and published by Mr. Sang. This last work was intended to contain, and does contain, his observations made during an extensive tour, undertaken in 1810, to visit the principal seats and plantations in the United Kingdom. He had scarcely commenced the arrangement of his materials, when he was hastily arrested by death, in the March of 1811. His works are of first authority, and rank on a level, both as compositions, and for sound practical knowledge, with the works of Abercrombie. The only garden plan we know as being his, is the principal approach from the north to Dalhousie Castle, near Dalkeith.

We have several passages marked to shew the practical character of his works, but must restrict ourselves to the following:—"A striking proof of the superiority of the larch, in *water-works*, occurred on the estate of Athol. A weir, or river dam, which, while constructed of oak, required to be renewed or repaired every four or five years, was formed with larch, and in 1792 had stood nine or ten years, the timber then remaining in a sound firm state. On the 6th of May, 1728, I visited this dam: it exhibited no signs of decay at that time." "I have known an instance where a field was *taken in* for a nursery from an old pasture of a rough sward, and in which myriads of the grub-worm, slug, &c., had found an asylum. It was conceived, that by sub-trenching or deeply digging it the land might be effectually cleaned; and, accordingly, the field was planted with nursery, without any preparatory crop of grain, &c., being taken. But the result was, that most of the firs, the larches, the elms, the beeches, &c., became a prey to the vermin the ensuing season; and their stems were found peeled entirely round, about an inch under the surface." "Perhaps some may think I say too much when I assert, generally, that trees three, or at most four, years from the seed, and which are from twelve to twenty-four inches high, will, in any situation or soil, outgrow those of *any* size under eight or ten feet within the seventh year. Observe, I say generally; for by planting a poplar or lime of eight feet, in deep mould and a sheltered situation, they will most likely outgrow an oak or elm of twelve inches *within* that time. But change situation and circumstances—place them on thin soil, and in an exposed situation, then mark the result: the young plants flourish, the others languish. This may be deemed an unfair comparison, the trees being different in their natures. But let the trial be made in *any* situation, with plants of the same species or kind: take two oaks, two beeches, two larches, &c., one of each being, suppose, eighteen inches, and the other any size from two to ten feet in height; and I do assert that, by an impartial treatment, the young will outgrow the old plants within the seventh year. Nor will the latter ever overtake them in growth, become such handsome trees, or valuable timber."

Meteorology of the Week.—At Chiswick, the average highest and lowest temperatures of these days, from observations during the last twenty-four years, are 56.1°, and 36.2°, respectively. The greatest heat, 78°, occured on the 3d, in 1848. Rain fell during 66 days of the period, and 102 were fine.

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In the Fruit-Garden department to-day, Mr. Errington has considered the modes of preserving the blossoms of our wall fruit, but there is one mode—that of *retarding* the blossom, which we wish he had entered upon more fully, for we believe it is by far the most desirable security for us to aim at. It is the blooming in March and early in April, the most fickle season of our fickle climate, that renders our crops of wall-fruit precarious. It is their blossoms being tempted out by sunny days, and then killed by frosty nights, that we should aim to avoid, for there is no doubt, if it can be effected, that it is wiser and safer to prevent their being induced to blossom, than to have to protect that blossom after it has expanded. Such a course of procedure is only another example of the old adage, "To prevent is better than to have to cure."

Now, we believe that this might be very easily and very effectively accomplished; and we beg to draw attention to the following experiment with two Bellegarde peaches, of the same age and size, growing in the same garden, and against the same wall. One, last November, was shaded by a moveable, close paling of boards, so high and so long as to shade the entire tree all the day, though placed at a distance of four feet in width, measuring from the wall. Every sunny or mild day, from November until the end of March, was this screen placed before the peach tree; and when the ground was frozen, a covering of straw was placed over the border about the roots to keep in the cold. At night, and during cold days, the screen was removed. We calculated that by keeping both the roots and branches inactive by this cold, shading, system, we

We have stated that Dr. Neill was for a time associated with Mr. Walter Nicol in the Secretaryship of the Caledonian Horticultural Society. Mr. Nicol, when appointed, had the reputation of being "the best practical writer on Scotch gardening" of his day. His father was the gardener who planned the grounds of Raith, near Kirkcaldy, in Fifeshire, and also the kitchen garden of Wemyss Castle in the same county. He himself began his career under his father at Raith, and eventually became head gardener at Rainham Hall, Suffolk. Returning to Scotland, he succeeded his father as head gardener at Wemyss Castle and remained there till 1797, when he left, and settled in Edinburgh as a garden-designer, and writer on Scotch gardening.

In 1798 he published his *Scotch Forcing and Kitchen Gardener*, and in the year following *The Practical Planter*. In 1809 he published *The Villa Garden Directory*; his *Gardeners' Kalendar* appeared in 1810, and his *Planters' Kalendar* in 1812, but this latter work was completed after his death, which as already noted occurred in 1811. It seems strange that though a good deal is known about Dr. Neill the printer, very little indeed is known about Mr. Nicol the practical gardener. Few now consult the works of either of them, or know them by name.

Died, about the middle of 1832, at the house of his father, at Wandsworth, Surrey, *J. Nicolles*, for some years past flower-gardener to Roger Pettiward, Esq., of Great Finborough Hall, Suffolk. We are not informed of Mr. Nicolles's age, but, from once seeing him, believe it was about 30 years. Mr. Turner, of the botanic garden, Bury St. Edmunds, briefly notices (Vol. VII. p. 498.) the garden under Mr. Nicolles's management; and in Vol. VIII. p. 160. is a communication from Mr. Nicolles himself; and there is also another from him, in the *Magazine of Natural History*, Vol. IV. p. 449., consisting of a list of 46 species of birds, which he had collected in the neighbourhood of Finborough Hall, and preserved; and from the same communication we learn that Mr. Nicolles, at the time of making it, had also preserved some insects, and was then forming a *hortus siccus*. Mr. Turner, in a letter lying by us, dated April 15. 1832, thus speaks of Mr. Nicolles: —"I have just finished a note of introduction to you for Mr. Nicolles. Poor fellow! he has completely killed himself by intense study by night and hard work by day. I pity him sincerely: he is every thing I wish for in a friend. He is clever, he is persevering, and in his little person carries a great deal of knowledge. The garden and houses at Finborough do him great credit; he took great delight in having them neat, and by almost incessant labour he accomplished his object." — *J. D.*

*Movable Cucumber bed.* — "Is there such a thing to be purchased as an iron bottom, on which to place a cucumber frame and mould, and, having done so, to support this frame and mould by props, and apply the dung underneath instead of at the sides? Such an arrangement, I think, would save gardeners a good deal of trouble, as the dung would never need to be worked, and less dung would suffice than by applying linings; but perhaps some of your readers have tried something of the kind. "THOMAS HAWKINS."

"*Haw, near Gloucester, Jan. 13th.*"

*Home-made Wines.* — "The time for making wines from our summer fruits being approaching, and wishing to possess some more certain rule for ascertaining the gravity of the fermenting liquor than I have yet had, and at the same time not being willing to purchase an expensive saccharometer, I beg to know whether Mr. Allen, (Gard. Mag. vol. i. p. 93.), has attended to the suggestion of making such an instrument at 10*s.* or 12*s.*, and, if so, where it can be obtained?

"*Norwich, Jan. 30th.*" "N. S."

"*A Provincial Horticultural Society* is very much wanted in this part of the country, (Staffordshire); but we do not know how to set about establishing one. A hint how to proceed from you, or any of your correspondents, would be thankfully received. "C. F. W."

"*Fazeley, Jan. 12. 1827.*"

## ART. VII. *Obituary.*

Died in June last, *Thomas Andrew*, Esq. of Coggeshall, Essex, an enthusiastic and skilful florist, who succeeded in collecting most of the finest foreign and British varieties of florist's flowers. Notwithstanding an extensive business as an attorney, he contrived, the greater part of the summer, to spend from ten to twelve hours a day among his flowers. Having built a handsome house, laid out the grounds with great taste, and got together an astonishing assemblage of tulips, ranunculuses, anemonies, and geraniums, he was called suddenly from his family and friends, in his fifty-fourth year, to their great grief and irreparable loss. *

On the 28th of January, *William Griffin*, Esq. F.L.S., H.S. of South Lambeth, many years a distinguished cultivator of bulbs, and from whose collection various plants have been figured in the Botanical Magazine and Botanical Register.

On the 9th of January, Mr. *James Niven*, a native of Pennicuik, near Edinburgh. He was bred a gardener, had a good education, and a natural taste for botany, which he studied for two years in the Botanic Garden of Edinburgh, under the then curator, we believe, Mr. Menzies. He came to England about 1796, and had the advantage of being employed at Syon gardens, under the late respected Mr. Hoy. In 1798 he was recommended to, and engaged by, George Hibbert, Esq. of Clapham, then one of the most ardent lovers and cultivators of plants, to go out to the Cape of Good Hope as that gentleman's resident collector. He accordingly proceeded thither, and, during a residence of five years, his unwearied exertions in exploring that extensive field for botanical research collected and sent home numerous new plants, as the botanical records of that period, and his name plant, one of the Proteaceæ, fully testify. During this stay, he not only made himself master of the Dutch language, but also of the Caffrarian, which latter acquisition was not only particularly useful in the prosecution of his own business, but also valuable to the settlers, and even the governors of the colony.

Mr. N. returned to England in 1803, and, after a short stay of only three months, was re-engaged to return to the Cape, in his former character of botanical collector, for a company of amateurs in Europe; including the late Empress Josephine of France, Mr. Lee of Hammersmith, &c. On this second visit he remained out nine years, and, though he never lost sight of the chief object of his mission, yet he had difficulties to encounter, and embarrassments to contend with, which quite deranged his intended excursions into the interior. The Caffre nation was on bad terms with the new masters of the settlement, and, in the necessary military measures undertaken by the British forces to check the encroachments of these barbarians, Mr. N. was compelled to accompany the troops as a guide and interpreter, and as such, though of signal service to General Craig, he had to submit to all the inconveniences and privations incident to the life and duties of a soldier! and, though he received no special reward for this service, he attracted the notice of the general, and received from him many marks of his approbation and regard, as well as that of every officer and inhabitant of the colony.

On his final return to England, he relinquished his botanical and gardening pursuits, and went into business with his brother, at his native village of Pennicuik, where he died about the age of fifty-two. He was a most affable and friendly-hearted man, hospitable to strangers, and kind to all about him. His wife died at the instant her husband's corpse left the door of the house, leaving five orphans! — (J. M.)

Early in February, *Alexander Henderson*, Esq. nurseryman, and a few years ago Lord Provost of Edinburgh; an excellent private character, and the first British gardener who has filled the situation of first city magistrate.

* The flowers have been placed under the judicious management of Mr. Baron, of Saffron Walden, and will be sold in bloom next summer, on a day that will be noticed in our advertising department.



Loudon's Gardener's Magazine, 1827

ing few extracts, and must refer those interested in these islands to the book itself.

Ferns abound everywhere, from the sea level to the highest mountain tops, in the hottest and oldest parts, in sunshine and shade, on the poorest and richest soils, and in the driest and wettest parts. They are of all sizes, from the tiny Hymenophyllum, scarcely ¼ in., to the gigantic Alsophila, tree Fern, having a trunk 50 ft. or more in height, surmounted by a crown of beautiful feathery-looking fronds. The number of distinct species and varieties of Ferns and allied Lycopodiums and Selaginellas indigenous to Fiji amounts, as yet found, to 216. I have no doubt the number will be raised to about 300 species when every part of the islands have been explored. Some of these Ferns are magnificent. The Dicksonia moluccana has fronds of a triangular shape, measuring 12 ft. in length and 10 ft. in breadth at the base. One of them would cover an area of 60 superficial ft. This gigantic leaf is supported by a stype or stalk 6 ft. in length and 3 in. in circumference. As a contrast to this may be mentioned the tiny fronds of the Filmy Ferns, Hymenophyllums, and some species of Trichomanes, scarcely one-eighth of an inch in size. The delicate fronds of a new species of the last named genus attain a height of 2½ ft. Most beautiful they look when seen with the rain-drops hanging like beads of crystal from the points of their finely-divided fronds. Not less pretty in this respect are Hymenophyllum javanicum and dilatatum, generally found on the sides of streams, shaded from the sun by the overhanging banks and lofty trees.

The Davallias found in Fiji are worthy of notice. However, the most beautiful of them are hymenophylloides and Blumeana. The latter is without doubt the prettiest Fern in Fiji. Both are found on the loamy banks of streamlets in densely shaded woods. Their fronds seldom exceed 1 ft. in height, are of a pale green colour, finely divided, and their membranous texture gives them a pellucid crystalline appearance, especially when they are covered with dew. In the dry parts of Fiji one of the silver-leaved Ferns (Cheilanthes farinosa) may occasionally be found growing in the crevices of the rocks, and its pretty relation, Cheilanthes tenuifolia, which, with Pteris ensiformis and Pteris geranifolia, abounds in dry Grassy fields, and comes up after the rains. While festoons of Lygodium reticulatum *wa kalou* (holy creeper), and tassels of Lycopodium Phlegmaria and nummularifolium, to 5 ft. in length, hang from almost every tree, the surface of the ground below is clad with one dense mass of beautiful Selaginellas, some of which attain a height of 4 ft. or 5 ft.

Orchids.—Of these there are not many different species in Fiji, but the various members of several genera are well represented. A species of Calanthe, having a spike of white flowers spotted with red, which grows among Grass, is common and beautiful. Another species of the same genus, with snow-white flowers, abounds in shady forests in wet and dry localities; and a third, having beautiful orange coloured flowers, sessile and clustered together on a short spike like the flowers of a Hyacinth, was found in one place near the top of Voma Peak.

Several species of Dendrobium are worthy of cultivation; these are Moblianum, Tokai, Gordoni (n. sp. Le M. Moore), and Hornei (n. sp. Le M. Moore). The latter was found in the island of Rabi, growing on a tree on the sea-shore, where it was occasionally bathed in the salt spray of the breaking waves. Dendrobium Gordoni was found in Samoa, growing on a Pandanus tree in a swamp, in the island of Upolu, and also on an old Dakua tree (Dammara vitiensis) near the Blackwater (Wai ni Loa), in the interior of Vitu Levu.

The flora of Fiji is essentially tropical. A few species belonging to a temperate one may, however, be met with on the mountain tops. Its general character is Polynesian, with some affinities to the flora of Australia and the Malay Islands on the western and north-western sides of the group. These resemblances decrease towards America on the east, and the northern parts of New Zealand on the south.

**The Herefordshire Pomona.**—The fourth part of this admirable work comes to us enriched with many plates of the fruits most commonly grown, with good wood-cuts and with much trustworthy matter of interest to fruit growers. We hope to notice the work at greater length, and in connection with the other numbers, and only now say that it is extremely well produced and edited. (London: D. Bogue. Hereford: Jakeman and Carver.)

## OBITUARY.

### MR. J. C. NIVEN.

On Sunday last, October 16, Mr. James Craig Niven, for many years curator of the Hull Botanic Gardens, died at his residence in the gardens, after a long illness, at the age of 53 years. Mr. Niven was born in 1828, of Scotch parents, in Dublin. His father, Mr. Ninian Niven, held for many years the position of curator of the Royal Dublin Society's Botanic Gardens at Glasnevin. Mr. J. C. Niven was educated in Dublin with a view to entering the medical profession, disliking which he commenced his career in his father's profession at the Royal Botanic Gardens, Belfast, in 1843. After two years' residence he went to the Duke of Buccleuch's gardens at Dalkeith, and in 1847 he had moved to the Royal Gardens at Kew. In 1848, Mr. John Smith, the ex-curator of Kew, informs us, he was appointed foreman of the herbaceous department, in which he took great interest. He was assiduous in collecting wild plants for the collection then forming, and for that purpose took journeys into various parts of the country. He drew up a complete catalogue of the herbaceous collection, arranged according to the Natural System, which was printed under the title of "Catalogue of the Herbaceous Plants in the Royal Gardens of Kew." This was used for the purpose of exchanging with other botanical establishments. It consisted of 62 octavo pages and enumerated 4878 species, of which there were 536 Gramineæ, Cyperaceæ, and Juncaceæ. Previous to this he had officially attained the title of assistant-curator.

At the close of the year 1852 an application was made to Sir William Hooker, director of the Royal Gardens, by Mr. Spence, the entomologist, for a curator for the Botanic Gardens at Hull. This appointment was offered, and indeed urged upon, Mr. Niven by Sir William Hooker, and he entered upon his duties in January, 1853. Mr. Niven succeeded within twelve months in remodelling the garden, and after the first two or three years, during which time the curator had to contend with a deep-rooted spirit of exclusiveness on the part of the committee of management, a thorough reorganisation of the institution took place, resulting in a steady increase of its popularity, and in the subscription list being nearly trebled. The collection of plants also rapidly increased, till in 1866 the catalogue of hardy plants then in cultivation in it numbered upwards of 6000 species, and took rank as one of the most extensive in the country. During his stay in Hull, Mr. Niven delivered upwards of 38 courses of botanical lectures in connection with the Hull School of Medicine, the Chemists' Association, the Art and Science Department, the Philosophical Society, &c. In the formation of the new company, and in the arrangement of the present new Botanic Gardens, Mr. Niven took a very prominent part. He has, as it were, "died in harness," and has terminated a connection with Hull which has extended over many years, and which has been a source of the greatest profit and pleasure to the majority of its inhabitants. Not only will his loss be felt at Hull, but also by the horticultural public generally. In addition to his knowledge of hardy plants, which was most extensive, his taste in designing gardens was of a very high order, and on matters of this kind he was frequently consulted. In him, too, garden literature has lost an able supporter, and more especially The Garden, to the pages of which he has since its commencement been a valuable contributor. To his undoubted talent in these respects he also added an affability of manner which made him many friends.

Provost Russel, Mayfield, Falkirk, N.B., died on Monday last. He was well-known among horticulturists chiefly for his celebrated collection of Orchids which is, or was, one of the finest in Scotland. Besides Orchids his garden is also famous for Ferns and other stove and greenhouse plants, hardy trees, shrubs, Coniferæ; altogether a most interesting place as far as plants are concerned, tender and hardy.

## GARDEN APPOINTMENTS.

Canford, Wimborne, Dorset, Mr. D. Williams.
Somerley, Ringwood, Hants, Mr. G. Richards.
Floors Castle, Kelso, Mr. A. Mackellar.
Greenlands, Henley-on-Thames, Mr. H. Knight.
Broom House, Fulham, Mr. J. Wilson.
Franklands, Burgess Hill, Mr. A. Burgess.
Pierrepont, Farnham, Surrey, Mr. J. Turner.
Owston Park, Doncaster, Mr. T. Gardiner.
Fern Hill, Thorpe Hamlet, Norwich, Mr. T. Lowns.
Cave Castle, South Cave, Yorks, Mr. N. Coppin.
Hatton, Feltham, Middlesex, Mr. J. Gardner.
Blake Hall, Ongar, Essex, Mr. W. Bailey.
Widberry Hill, Ware, Mr. F. Parsons.
Highfield, Bickley, Kent, Mr. E. Wilson.
Chelston Cross, Torquay, Mr. J. Hobbs.
Hemsted Park, Staplehurst, Mr. R. Perkins.
Rushmore, Salisbury, Mr. R. Stanley.
Shenley House, Stony Stratford, Mr. W. W. B. Ward.
Balrath Burry, Meath, Mr. W. Kettlewell.
Gawthorpe, Burnley, Lancs, Mr. S. McMaster.
Brockley Hall, Brockley, Mr. G. Hester.
Somerset Lodge, Wimbledon, Mr. S. Burge.
The Mote Park, Maidstone, Mr. J. Robinson.
Florian, Torquay, Mr. J. Jordan.
Belhus Park, Aveley, Mr. J. Gadd.
Thurcroft Hall, Rotherham, Mr. J. Willis.
Eden Hall, Penrith, Mr. Cuckeney.
Mount Oswald, Durham, Mr. R. Irwin.
Rose Hill, Carlisle, Mr. R. Jackson.
Morton House, Carlisle, Mr. W. Murray.
Dovenby Hall, Carlisle, Mr. Goodall.
Saumarez Park, Guernsey, Mr. W. Cruickshank.
Coppins, Iver, Mr. J. Fletcher.
Colworth Hall, Sharnbrook, Beds, Mr. A. Waters.
Woodside, Paisley, Mr. Wm. Martin.

**Names of plants.**—*F. C. Barker.*—Viburnum Opulus. —*F. T. Drummond.*—1, Sedum glaucum; 2, S. monstrosum; 3, S. Lydium; 4, Cacalia cylindrica.—*Edward.*—Hæmanthus coccineus.—*W. Cash.*—Pleione lagenaria; others next week. It is unusual for the Pleione to flower without leaves.—*F. R. M.*—Euonymus europæus (Spindle Tree).—*A. German.*—Rhamnus hybridus.

**Names of Fruit.**—*J. K.*—1, not recognised. Distinct from any sort grown in the Royal Horticultural Gardens at Chiswick; 2, King of the Pippins; 3, Winter Pearmain; 4, Cox's Orange Pippin.

## COMMUNICATIONS RECEIVED.

G. T. W.—R. McC. & Co.—A. G.—R. C.—W. G.—R. B. —J. C. B.—W. H. F.—J. C. C.—J. C. C.—G. S. S.—H. H. C. —R. J.—F. C. B.—W. & Co.—J. S.—W. B.—M. N.—T. B. —R. M. G.—J. Van V.—G. J.—C. D.—R. D. L.—A. H.—F. —C.—E. B.—E. H.—W. T.—J. G. L.—Peregrine.—Old Mortality.—J. H.—R. S.—W. S.—R. C. V.—J. B.—W. J. L. —A. M.—J. G. V.—J. M.—R. D.—D. T. F.—T. J.—W. R. —Dr. N.—A. P.—T. B.—J. G.—T. D. F.—T. D. H.—R. N. —J. S.—N.—F. S.—(No name, Pelargonium blooms).—T. G. —H. H. C.—H. H. C.—G. S. S.—W. C.—E. V.—J. C. C.— J. C. C.—A. B. H.—J. C.—S. G. S.—J. R.—R. P.—D. T. F. —R. D.—R. G.—R. J. L.—G. R.—T. C.—W. H.—E. A.— W. C.—J. & Sons.—T. H. A. H.—J. T.—J. S.—R. M. G.— J. S. & Sons.—J. R. & Sons.—J. C. S.—H. H. D'O.—F. M. —D. & Co.—J. G.

found, appeared to be the Agaricus (Tricholoma) rubens, Quelet. Agaricus (Clitocybe) tumulosus, Kalch., was again found, as it had been in a former year, but not recorded.

Of the rarer species the number was also small, including Agaricus (Collybia) rancidus, Fr.; a splendid Cortinarius, which did not appear to be specifically distinct from Cortinarius fulgens, Fr.; the delicate white Russula lactea, Fr.; Agaricus (Hypholoma) udus, P., and Agaricus (Hypholoma) storea, Fr., both new to Herefordshire. Agaricus (Lepiota) ermineus, Fr., was brought from Malvern; and Agaricus (Lepiota) gracilentus, Fr., was not uncommon near Hayward Forest. The yellow variety of Russula fragilis (Fries, *Syst. Myc.*) having been recently constituted a distinct species under the name of Russula citrina, Gillet, appeared under its new name, but seems to be very common everywhere in England.

Thus ends our record of the Woolhope meeting of 1881. There was a dearth of nothing but fungi. Hearty welcome to strangers, cheerful companionship, free and profitable interchange of opinions, zeal, energy, and a hopeful anticipation of a better future, were all as strong as ever. New faces appeared, old faces were absent, and yet the last line of the programme was reached—

"Saturday, October 8—Departure of Visitors."

*M. C. C.*

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**Dundee Horticultural Association:** *Oct.* 7.—The ordinary monthly meeting of this Association was held in the Templar Hall, Dundee, on the above date; Mr. J. D. Ker, Douglasfield, in the absence of the President, presiding. Mr. Robert Clark, Scotscraig Gardens, read a paper on "The Rhododendron." He opened his subject by giving some details of the rise and progress of the Rhododendron since it was first introduced into this country in the year 1656, and spoke at some length on its native haunts. With a few exceptions they were clearly plants that loved the mountain air, being found in far the greater variety, beauty, and profusion in high altitudes throughout Europe, Asia, and North and South America. Phyto-geographical investigation had shown that an altitude giving a mean temperature of 41° to 45° Fahr. might be considered the Rhododendron region. In the equatorial zone they were found most abundantly at an elevation of 11,400 feet; in the tropical zone at 9500 feet; and thus gradually descending till, in the sub-arctic zone, they were seldom found about 1900 feet. That the Rhododendron was naturally a moisture-loving plant the lecturer then went on to show. In the damp rocky defiles of the mountains it grew in great luxuriance; or, if its position was less favourable for root-moisture, the atmosphere was generally found to be damp, and the climate generally more humid. As regards soil, Mr. Clark said peat seemed to meet the natural requirements of the plant better than any other kind of soil, and this he thought showed the Rhododendron to be a "vegetarian," delighting in a vegetable diet. Almost any soil, however, granted it contained a fair proportion of vegetable matter, will grow Rhododendrons successfully—sufficient moisture at the roots being the one essential, without which no success need be looked for. A few concluding remarks on the general treatment of the Rhododendron brought Mr. Clark's most interesting paper to a close.

Mr. James Laird, Monifieth Nurseries, followed with a paper on "Transplanting," in which he rapidly glanced at Nature's mode of increasing and distributing plants by means of seeds, some germinating in the immediate vicinity of the parent plants, others being carried to great distances by the wind, their special formation in many cases being evidently designed for this purpose, while in yet other cases birds and animals were the means of distribution. Much of their food consisting of fruits and seeds, and the latter, escaping injury in the process of mastication and digestion, were often deposited in districts far remote from the trees and plants that had borne them. He then entered upon the more practical part of the subject, showing the importance of preparing the soil to which the plant has to be removed, by the addition of proper manure or compost where necessary, thoroughly mixing and stirring it, and seeing to its being in proper condition to receive plants—a condition which may be described as neither wet nor dry. Plants are injured by being committed to the ground when it is in a sour [or wet, or in a dry parched state—it is therefore a mistake to plant on a retentive soil in the time of rain, while on a dry, absorbent soil it may be proper to plant in showery weather, or immediately after heavy rain. He then spoke of the careful attention that ought to be given to the removal of the plant, and here entered minutely into the *modus operandi* of lifting and transplanting large specimens, affirming that if the details given were carefully carried out in all points, a successful removal was almost certain. Mr. Laird then entered at length upon the much debated question as to the best season of the year for transplanting, setting forth some of the arguments *pro* and *con*. His own opinion was that deciduous plants were best planted in autumn and winter, and evergreens in spring, but that no hard and fast line could be drawn. After some further remarks Mr. Laird mentioned the following general principles, which applied to either system:—The wants of a plant should be carefully studied by acquainting one's-self with its native country and natural habitat, the nature and consistency of the soil in which it thrives best naturally; and looking to its habit and structure, an intelligent and discriminating attention to these points, and due care in manipulation, should enable the operator to deal successfully with the process of transplanting in all its different phases.

An interesting discussion followed the reading of these papers, and hearty votes of thanks were awarded the speakers.

**Birmingham Natural History Society Fungus Foray.**—Inspired by the success which attended the organisation of special excursions for the collection and study of fungi, this Society has followed the example of the Essex Club and achieved its first fungus foray. On Saturday, October 8, the members met in force at the New Street Station and proceeded to Sutton Park under the guidance of Dr. M. C. Cooke, and the secretaries, Messrs. Morley and Grove, to collect fungi. The meeting did not take place until nearly 2 o'clock, and even then the dull morning had shown no signs of improvement. Notwithstanding the damp atmosphere and drizzling rain there was more enthusiasm than fungi, for the latter consisted of only a few of the smaller and commoner species. For three hours the Park was scoured, and all that could be found were collected, but the only species worthy of note were Agaricus (Pholiota) heteroclitus; a singular variety of Agaricus (Pluteus) phlebophorus with yellow stem and gills, the latter becoming pink when dry; two specimens of Agaricus (Psalliota) echinatus, Roth, with blood-coloured stem and gills; also Agaricus (Pleurotus) septicus, Fr.; Agaricus (Flammula) conissans; some small tufts of Tremella foliacea, and a few immature Myxomycetes. The residue consisted of such common species as Agaricus melleus, laccatus, fascicularis, sublateritius, and a few others. The subgenus Tricholoma was represented by A. saponaceus and A. nudus; and Amanita by a single specimen of A. rubescens and A. phalloides.

At the close of the excursion the party adjourned to a neighbouring establishment for tea, after which Dr. Cooke gave some brief instructions on the collection, determination, and preservation of species, and before eight o'clock the foray had come to a close, and the members were on their way back to Birmingham by train.

The place selected would, probably, at a more favourable season, have given every satisfaction; but certainly it presented on this occasion the greatest deficiency of fungi which we had observed during the whole of the preceding week. It is to be hoped that the Society will not be discouraged, and that, if repeated another year, the results will prove more satisfactory. *M. C. C.*

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# Notices of Books.

**Semis et Mise à Fruit des Arbres Fruitiers.** Par E. Carrière. Paris: Rue Jacob, 26.

This is a little treatise on raising and cultivating fruit trees. The cultivated varieties have, says the author, originated as seedling variations or as bud variations (sports). As life is short, it is a matter of importance to induce early fruitfulness, which is accomplished by pricking out of seedlings, transplantation of trees, root-pruning, twisting the branches or bending them down, pinching or removal of buds, grafting, and other well-known practices, based, says the author, on the principle of organic balance or compensation—*balancement organique*—by virtue of which all the parts of a tree are modified in proportion, so that if there is excess in one place it is compensated for by defect elsewhere—action induces reaction, and so forth. The art of cultivating fruit trees consists in such operations as ensure a due proportion between all the parts and all processes of the plant, such proportion, of course, being regulated not so much by the requirements of the plant itself as by the purposes for which the tree is cultivated. Starting with these principles of action, M. Carrière proceeds to describe the nature of the several operations and the method of carrying them out. M. Carrière describes a process of "martelage," which we have never seen adopted, and which seems too barbarous to be generally recommended. It consists in striking with a mallet (*marteau*) the bark all round the base of the tree. The object is to set up such a disturbance in the vegetative organs that the flowers may set more freely. The process is also stated to hasten the maturity of the fruit when applied to the branches. A similar process, called "gaulage," consists in threshing with a long pole (*gaule*) the young sterile branches. Alluding to the importance of careful selection M. Carrière adverts to the fact that the Roses of fifty years ago took six or eight years to produce their flowers, while now it is not unusual to see them flower the first year, so there is great variation in this respect between seedlings derived even from the same fruit, some seedlings requiring four, others eight to twenty years to fruit. The first Duchesse d'Angoulême Pear only began to produce fruit at thirty years of age. The author cites other examples in the case of Almonds.

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**A Pocket Guide to British Ferns.** By Marian S. Ridley. (London: Bogue.)

Miss Ridley's book on the British Ferns is distinguished from other publications on the same subject, chiefly by the form in which its matter is arranged. It treats of the species of British Ferns only, here set down as fifty-four in number, and does not enter on the more difficult task of discriminating the varieties. The plan adopted is that of "tabulating by words without figures such of the features as alone are absolutely necessary to identify a Fern even if never previously seen," and this is claimed as the sole merit of this little guide-book. In carrying out this plan a page is devoted to each species, and an abbreviated description of all the parts is presented in a tabulated form under corresponding heads. This may be more comprehensible to some persons, but we confess it does not seem so easy to us, nor indeed so simple a plan of identifying a particular plant, as the old one of indicating the characters which distinguish first the genus and then the species, which is adopted in all text-books. However, the plan adopted is very well carried out, the first portion, extending to p. 40, being occupied by definitions and explanations of structure, terms, classification, &c., while most of the remainder is occupied by the tabular descriptions. The definitions are mostly accurate, but we notice an occasional slip, as where "quadripinnatifid" is made synonymous with "quadrifid," and both defined as being "cut into four lobes or segments"—a description which, of course, applies only to the latter word, while quadripinnatifid means four times cut, that is, cut into lobes of the fourth order. The author frankly states that she has "of necessity" been much indebted to previous writers, and this indeed is evident. The arrangement adopted is not the alphabetical but the structural, the sequence of genera being "according to the relations or points of resemblance with one another." The tables comprise sixteen heads, namely, the scientific title, generic character, specific character, caudex, stipes, scales, frond as to shape, texture, duration, venation, receptacle, sori as to shape and position, indusium, locality, and general remarks, brief definite particulars being stated under each head. Altogether, if not actually wanted, the little book may be usefully consulted "to lead on the uninitiated," as its object is described to be in the prefatory remarks.

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# Obituary.

WITH deep regret we record the death, on Sunday last, of Mr. JAMES CRAIG NIVEN, for many years Curator of the Hull Botanic Gardens, who expired at his residence in the Gardens, after a long illness, aged fifty-three. Mr. Niven was born in 1828, of Scotch parents, in Dublin. His father, Mr. Ninian Niven, held for many years the position of Curator of the Royal Dublin Society's Botanic Gardens at Glasnevin. Mr. J. C. Niven was educated in Dublin with a view to entering the medical profession, disliking which he commenced his career in his father's profession, at the Royal Botanic Gardens, Belfast, in 1843, where he passed through the initiatory stages of his training. After two years' residence he went to the Duke of Buccleuch's extensive establishment at Dalkeith Palace, and in 1847 he had moved to the Royal Gardens at Kew. Before he was twenty years of age he obtained an appointment in one of the most important botanical departments of the establishment, which he held till 1852, when a special position as Assistant-Curator of the Royal Gardens was assigned to him. At the close of the year 1852 an application was made to Sir William Hooker, Director of the Royal Gardens, by Mr. Spence, the great entomologist, for a Curator for the Botanic Gardens at Hull. This appointment was offered, and indeed urged upon Mr. Niven by Sir William Hooker, and he entered upon his duties in January, 1853. Owing to the industry and energy he brought to bear on his work, Mr. Niven succeeded within twelvemonths in remodelling the garden, and after the first two or three years, during which time the Curator had to contend with a deep-rooted spirit of exclusiveness on the part of the Committee of Management, a thorough reorganisation of the institution took place, resulting in a steady increase of its popularity, and in the subscription list being nearly trebled. The collection of plants also rapidly increased, till in 1866 the catalogue of hardy herbaceous and alpine plants then in cultivation numbered upwards of 6000 species, and took rank as one of the most extensive in the country. During his career in Hull Mr. Niven delivered upwards of thirty-eight courses of botanical lectures in connection with the Hull School of Medicine, the Chemists' Association, the Art and Science Department, the Philosophical Society, &c. In the formation of the new company, and in the arrangement of the present new Botanic

Gardens, Mr. Niven took a very prominent part; and in carrying on the duties of this wider sphere of labour with much success, he has literally "died in harness." Mr. Niven was a frequent contributor to the literature of horticulture—to our own columns amongst others; and he was very fitly selected to edit the reissue of *Maund's Botanic Garden*, a work largely occupied by illustrations of hardy plants, of which Mr. Niven was an experienced cultivator, and of which he possessed an extensive and sound critical knowledge. As a landscape gardener he has made his mark, having shown good taste and judgment in the laying-out of parks and gardens, public and private, in Hull and its neighbourhood.

—— It is with great regret we have to record the death of Provost RUSSEL, of Mayfield, Falkirk, N.B., a gentleman well known to the readers of this paper as a most enthusiastic Orchidophilist. For twenty years the late Provost owned, and his excellent gardener, Mr. Sorley, maintained in good condition, a very valuable collection of Orchids. A slight break in the time given occurred in 1875, when the greater part of the collection was sold by auction by Mr. Stevens. Taking these plants all round, and considering their number, they were without doubt the best lot ever sold by auction. Not only were they splendidly grown, but the many forms and varieties were excellent. Especial mention may be made of Vanda tricolor Russeliana, Lælia purpurata Russeliana, Cattleya Trianæ Russeliana, and Saccolabium Blumei Russelianum. Among especially well-grown plants then sold must be mentioned the fine specimens of Cattleya Trianæ, C. Warneri, C. labiata, C. Dowiana, Zygopetalum maxillare, Colax jugosus, Chysis bractescens, and Saccolabium præmorsum. After the sale, the Provost started immediately to form the now existing good collection. No one will miss the late Provost more than our occasional correspondent, Dr. Paterson, of the Bridge of Allan, who was his class fellow at college, the first to turn his love and attention towards Orchids, and his life-long friend. The learned Doctor is firmly of opinion that the greatest act of kindness he ever did for Provost Russel was that of inducing him to turn from less worthy subjects to the practical study of horticulture. Provost Russel expired in his own residence on Monday afternoon last, but one hour intervening between Dr. Paterson's last visit and the sad event.

# The Weather.

*STATE OF THE WEATHER AT BLACKHEATH, LONDON,*
FOR THE WEEK ENDING WEDNESDAY, OCTOBER 19, 1881.

| MONTH AND DAY. | BAROMETER. | | TEMPERATURE OF THE AIR. | | | | | HYGROMETRICAL DEDUCTIONS FROM GLAISHER'S TABLES 6TH EDITION. | | WIND. | RAINFALL. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean Reading Reduced to 32° Fahr. | Departure from Average of 18 years. | Highest. | Lowest. | Range. | Mean for Day. | Departure of Mean from Average of 60 years. | Dew Point. | Degree of Humidity. Sat. = 100. | Average Direction. | |
| Oct. | In. | In. | ° | ° | ° | ° | ° | ° | ° | | In. |
| 13 | 29.57 | −0.12 | 54.0 | 44.0 | 10.0 | 49.7 | − 1.0 | 48.2 | 95 | W.: W.S.W | 0.35 |
| 14 | 29.15 | −0.54 | 58.5 | 44.5 | 14.0 | 50.5 | + 0.1 | 45.6 | 84 | W.SW.: W.N.W | 0.09 |
| 15 | 29.88 | +0.18 | 48.5 | 38.5 | 10.0 | 42.7 | − 7.5 | 40.1 | 90 | W.: W.NW | 0.00 |
| 16 | 30.18 | +0.48 | 46.0 | 32.5 | 13.5 | 38.9 | −11.1 | 33.0 | 80 | W. | 0.00 |
| 17 | 30.20 | +0.50 | 53.0 | 28.5 | 24.5 | 40.0 | − 9.8 | 34.2 | 80 | S.W. | 0.04 |
| 18 | 30.09 | +0.39 | 52.5 | 33.0 | 19.5 | 42.8 | − 6.9 | 36.5 | 79 | S.E.: E.S.E. | 0.00 |
| 19 | 29.90 | +0.20 | 50.5 | 36.5 | 14.0 | 43.6 | − 5.9 | 38.6 | 82 | E.: E.N.E. | 0.00 |
| Mean | 29.85 | +0.15 | 51.9 | 36.8 | 15.1 | 44.0 | − 6.0 | 39.3 | 85 | W:S.E. | 0.48 |

Oct. 13.—A fine morning, partially cloudy; overcast from noon. Heavy rain at night.
— 14.—Fine morning. A very heavy gale of wind; many trees blown down.
— 15.—Fine and bright morning. Great darkness about noon, with rain for a short time. Cloudless at night.
— 16.—A fine, clear, cold day. Clear, calm night.
— 17.—A thin fog in the morning. A fine and clear day and night; very cold.
— 18.—A fine bright day and night.
— 19.—A very fine and almost cloudless day and night.

LONDON: *Atmospheric Pressure.*—During the week ending October 15, the reading of the barometer at the level of the sea decreased from 29.90 inches at the beginning of the week to 29.78 inches by 3 P.M. on the 9th, increased to 30.06 inches by 9 A.M. on the 10th, decreased to 29.75 inches by 9 A.M. on the 11th, increased to 29.86 inches by 9 A.M. on the 12th, decreased to 29.77 inches by midnight of the same day; increased to 29.91 inches by 3 P.M. on the 13th; decreased to 29.08 inches by 9 A.M. on the 14th, and was 30.21 inches at the end of the week.

The mean reading for the week at the level of the sea was 29.80 inches, being 0.41 inch lower than last week, and 0.08 inch below the average for the week.

*Temperature.*—The highest reading in the shade during the week was 61°, on the 11th. On the 15th the temperature did not rise above 48°.5. The mean of the seven high day temperatures was 54°.9.

The lowest temperature in the week was 38°.5, on the 15th; on the 11th the lowest temperature was 50°. The mean of the seven lowest temperatures was 44°.2.

The greatest range of temperature in one day was 14° on the 14th; the least was 6°.8 on the 9th. The mean of the seven daily ranges was 10°.7.

The mean daily temperatures were, on the 9th, 46°.6; on the 10th, 54°.3; on the 11th, 54°.8; on the 12th, 52°.5; on the 13th, 49°.7; on the 14th, 50°.5; and on the 15th, 42°.7. On the 10th, 11th, 12th, and 14th, the temperature was above its average by 2°.7, 3°.5, 1°.5, and 0°.1 respectively; while on the 9th, 13th, and 15th it was respectively 5°.3, 1°, and 7°.5 below the average. The mean temperature for the week was 52°.2, being 2°.2 warmer than last week, and 0°.9 below the average of the week.

The highest reading of a thermometer with blackened bulb in vacuo, placed in the full rays of the sun, was 107° on the 14th; the highest, on the 9th, was 65°. The mean of the seven readings was 84°.9.

The lowest reading of a minimum thermometer with its bulb placed on grass and fully exposed to the sky was 36°, on the 15th. The mean of the seven readings was 40°.4.

*Rain.*—Some fell on five days, to the amount of 0.49 inch.

ENGLAND: *Temperature.*—During the week ending October 15 the highest temperatures were 66° at Sunderland, 64°.6 at Cambridge, and 63° at Truro. The highest temperature at Bradford was 57°.1, at Wolverhampton 57°.8, and at Sheffield 58°. The mean from all stations was 60°.6.

The lowest temperatures in the week were 31°.8 at Wolverhampton, 33°.7 at Nottingham, and 34° at Hull. The lowest temperatures were 38°.8 at Plymouth, and 38°.5 at Blackheath and Brighton. The mean from all stations was 36°.4.

The greatest ranges of temperature in the week were 31° at Sunderland, 27°.5 at Cambridge, and 26°.3 at Nottingham. The least ranges were 20°.3 at Bristol, 21°.6 at Liverpool, and 22° at Brighton and Leeds. The mean from all stations was 24°.2.

The mean of the seven high day temperatures was or exceeded 58°.6 at Truro, Sunderland, and Plymouth, and was less than 54° at Sheffield and Hull. The mean from all stations was 55°.6.

The mean of the seven low temperatures was 49°.4 at Truro and 45°.2 at Bristol, and was less than 41° at Nottingham, Wolverhampton, and Hull. The mean from all stations was 42°.9.

The mean daily range was 16°.9 at Sunderland, 15°.8 at Cambridge, and 15°.2 at Nottingham, and was 9°.6 at Truro, 10°.3 at Liverpool, and 10°.7 at Blackheath.

The mean temperature for the week was 53°.2 at Truro, 50°.2 at Blackheath, and 50°.1 at Plymouth, and was 44°.9 at Hull, 46°.1 at Wolverhampton, and 46°.8 at Leicester. The mean from all stations was 49°.

*Rain.*—The greatest falls were 2.05 inch at Bradford, 2.01 inch at Sheffield, and 1.22 inch at Wolverhampton. The least falls were 0.22 inch at Brighton, 0.40 inch at Plymouth, and 0.45 inch at Truro. The mean from all stations was 1.04 inch.

SCOTLAND: *Temperature.*—During the week ending October 15 the highest temperature was 60°.9 at Aberdeen. At Paisley the highest in the week was 56°. The general mean of the highest temperatures was 57°.5.

The lowest temperature was 32°.2, at Edinburgh; at Glasgow and at Paisley the lowest temperature in the week was 34°. The general mean was 33°.3.

The mean temperature for the week was highest at Paisley, 49°.5, and lowest at Edinburgh, 44°.7. The general mean was 45°.9.

*Rain.*—The largest falls were 2.35 inch at Aberdeen, 2.29 inch at Paisley, and 2.25 inch at Glasgow; the smallest falls were 1.11 inch at Edinburgh, and 1.38 inch at Leith. The average fall was 2.07 inches.

JAMES GLAISHER, F.R.S.

## Enquiries.

*He that questioneth much shall learn much.*—BACON.

ARTOCARPUS INTEGRIFOLIA.—Can any of your correspondents give me any hints with regard to the treatment for the fruiting of this plant? Here we have a fine old healthy specimen, which my employer is very anxious to see in fruit. We have tried every possible means that we could think of, but all without success. Annually it makes growths from 1 foot to 2 feet long. As a foliage plant it is very handsome; but as the fruit is what we are in trouble to see, any information will greatly oblige. *Morgan.*

SEQUOIA (WELLINGTONIA) GIGANTEA.—To what height has this tree reached in this country? Are there any to be seen over 50 feet high, and, if so, where? *E. W. G.*

## Answers to Correspondents.

FUNGUS: *P. G.* Your fungus is not a Truffle, neither is it edible to ordinary human beings. It is the curious small, uncommon, almost smooth variety of Scleroderma vulgare, a sort of half subterranean corky Puff-ball. It belongs to a different family of fungi from the Tuber albidum mentioned by you. This is a synonym for T. æstivum, the common edible Truffle of this country. *W. G. S.*

GRAPES: *Old Subscriber.* The Muscat Grapes you send are affected by a spot of decay, which appears to spread over the berry, and render it useless. Without further information we are unable to suggest what is the cause of the damage. The berries do not appear to have been punctured by birds or insects. Have they been scalded by drops of water on the berries or on the glass?

HEATING: *Economy.* We can advise you to do nothing but change your stoker. You cannot expect any boy to stoke so carefully as such an apparatus requires unless he is looked after, and the maintenance of a slow steady fire firmly insisted upon. There is nothing the matter with the boiler, and the waste of fuel should be trifling in competent hands.

INSECTS: *A. H. W.* We regret that, with utmost care and the aid of the microscope, we could detect no insect or "worm" on the leaves or in the smashed Grape sent. We think it doubtful whether the enemy was introduced with the Azaleas, but an inspection of the insect will alone permit us to solve this question. *W.—E. C.* Your Cattleya buds have small holes gnawed into them, in several of which we found a few black four-winged flies, being a species of the genus Eurotoma, which (although belonging to a family of parasitic insects, Chalcididæ) we believe were the real depredators whilst in their larvæ state. As males and females were found associated, it will be well to examine the plants very carefully, and burn every bud which is injured, thus preventing future mischief from their progeny. *W.*

LÆLIA PUMILA: *E. C.* Both flowers appear to be the same species, so far as we can judge from the materials sent, though the one erroneously marked L. præstans is the finest variety of the two. L. pumila and L. præstans, however, bear a very close resemblance to each other. The flowers sent have the lobed auricles at the top of the column, with an intermediate process, and the three ridges on the disc of the lip, characteristic of L. pumila. The other has from four to seven ridges on the disc of the lip, and the columnar auricles are acute.

LAPAGERIA ROSEA: *J. S. Mitchell.* See p. 207 of our number for August 12, 1876.

LAYING TURF: *Athletic.* We do not know, such work being usually done by day labour. It depends in a measure upon the amount of levelling required whether the job can be done cheaply or not.

NAMES OF FRUITS: *R. F. L.* You must send better specimens. We cannot attempt to name Pears from the poorest fruits that can be found; it is difficult enough even with good examples.—*T. P.* 1, Cellini (small specimens); 2, Golden Noble; 3, French Codlin; 4, Dr. Harvey; 6, Ne plus Meuris; 7, Glou Morçeau; 5 and 8, not recognised.—*T. H.* 2, Althorp Crassane; 3, Swan's Egg; 1 and 4, not known.—*J. B. T.* 1, Gilogil, probably; 2, Dumelow's Seedling; 3, Dutch Mignonne; 7, 8, Pitmaston Duchess; 9, Beurré Bosc; 10, Beurré Diel; 11, Glou Morçeau; 12, Cox's Pomona; 4, 5, 6, not recognised.—*G. T. R.* 1, 2, not recognised; 3, Golden Noble; 4, Old Nonpareil; 5, Hampshire Nonsuch.—*A. B. P. Apple:* Devonshire Buckland.—*T. W. O.* 1, Nonsuch; 2, Manx Codlin; 4, Cox's Orange Pippin; 5, Cellini. *Pears:* 2, Beurré Sterckmans; 4, Catillac; 5, Beurré Diel; 6, Knight's Monarch; 10, Duchesse d'Angoulême; 11, Hacon's Incomparable; 12, Glou Morçeau; others not recognised.—*Metcalf & Son.* We believe it to be the Golden Crab.—*C. H. Clissold. Apples:* 1, Beauty of Kent; 2, may probably be Golden Noble, but not sure. *Pears:* 1, Jersey Gratioli; 2, Josephiné de Malines.

NAMES OF PLANTS: *T. G.* Staphylea pinnata.—*W. B.* The Douglas Fir (Abies Douglasii).—*W. S. R.* 1, Retinospora pisifera aurea; 2, Pteris serrulata; 3, P. longifolia; 4, P. serrulata angustata; 5, P. hastata macrophylla; 6, Asplenium Hemionitis.—*F. H. B.* Both are varieties of the Oriental Plane (Platanus orientalis), but No. 2 is nearest to the type.—*Cryptos.* We do not recognise the plant.—*J. E, F.* 1, Hedychium coronarium; 2, Phyllanthus nicosus; 3, Adi-

several articles dealing with its development and work were published in the *Kew Bulletin* for October 1897. Mr. Willey visited England on leave last summer, and devoted July and August to a course of study of economic subjects at Kew. He married in 1895, but had no family.

### Mr. Nathaniel Cantley.

It is with pleasure I write a few lines to perpetuate the memory of the late Mr. Cantley, who at the time of his death held the position of Superintendent of Gardens and Forests at Singapore, and who died as far back as the early part of 1888. I find he was apprenticed to the Trinity Nursery, Edinburgh, in 1862, and entered Kew in 1869, leaving three years later to take up the appointment of Assistant Director of Gardens and Forests at Mauritius, where his work was thoroughly appreciated. This led to his appointment as head of the Gardens and Forest Department in the Straits Settlements in 1880.

It was my privilege and pleasure to work with him for about seven years, and daily association with him commanded respect and admiration. Looking back on his life as a whole, his good qualities, both professionally and socially, stand out in a very prominent degree. His untiring energy and his large and comprehensive grasp of the duties of his profession were strikingly displayed in his organization of the Forest Department in these Settlements, and to which I paid a tribute in the last Annual Report on the Forest Department, on which occasion I had to review its work. It would be too long to go into the details of his work in connection with Forestry here, suffice it to say that he established a reputation any one might be proud of. In this connection it is melancholy to think, however, that the fatigue entailed in inspecting the outlying jungles, all of which had to be done on foot, tended to enfeeble a frame which had already been debilitated by the malarial fever of Mauritius.

His great energy made itself felt in other departments of his charge—notably in the establishment of an Economic Garden, which has now become larger than the Botanic Garden proper; but, alas! death came all too soon and cut short a career which had already made its mark, and which undoubtedly would have added fresh proofs of distinction, and been an example at once the admiration of all Kewites and as showing the value of those principles we have all imbibed at Kew.

He died in 1888 whilst on a voyage to New Zealand, whither he had been ordered by his doctor in the hope that he would regain his health by a sojourn there. His widow and children are living in New Zealand.—Walter Fox, Singapore.

We are indebted to Mr. John Horne, late of Mauritius, for the photograph here reproduced. It is dated 1876.

### Mr. James C. Niven

Although it is seventeen years since James Niven died, the position he attained in botanic-horticulture was such as to call for his inclusion in our

"gallery" of past distinguished Kewites. He was the son of Ninian Niven, Curator of the Botanic Garden, Glasnevin, and was born in 1828. When his father left Glasnevin and set up as a landscape gardener, he was succeeded by Dr. Moore, father of the present Keeper of the Glasnevin Garden, and under whose tuition the young Niven was placed. He entered Kew in 1846, where he soon won the position of foreman in the Herbaceous and Alpine department, and afterwards that of Assistant Curator. He drew up a catalogue of the herbaceous and alpine plants grown at Kew, which was printed in 1853; it enumerated nearly 5000 species. In the same year he accepted the Curatorship of the Botanic Garden at Hull, a position which he held until his death, which occurred in 1881. He succeeded in making the Hull Garden famous for its collection of hardy plants. He also distinguished himself as a landscape gardener, as a lecturer on botanical and horticultural subjects, and was a frequent contributor to the horticultural press. He was editor of the last edition of *Maund's Botanic Garden*. A more detailed account of his career was published in *The Garden*, vol. xx., which was dedicated to his memory by Mr. Robinson.

### Mr. William Fowler.

The following notice of the death of Mr. Fowler, late Superintendent of Clifton Park, Baltimore, appeared in a New York paper in August last:—In the death of William Fowler the craft loses a good man and thorough gardener. Born December 19, 1822, at Kelvin Grove, Glasgow, he served his apprenticeship in the Botanic Gardens of that town under Sir William J. Hooker. He afterwards entered Kew, leaving again in 1848, and for some years afterwards he "wandered about the world." When in Tasmania he assisted Mr. R. Gunn as collector for the Kew Herbarium. From Australia he came to Baltimore, and was engaged by the late John Hopkins upon the Clifton Estate, where he remained for forty years. Many rare trees and shrubs were planted by him. He took a special interest in Acacias, Eucalypti, and other Australian plants; Conifers were also favourites with him, and he formed a fine collection of them at Clifton. Many horticulturists attended his funeral, which took place on Monday, July 26.

A communication from Mr. Fowler was published in the *Journal* for 1896, p. 17.

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Mr. Benjamin Warrell, for many years stoker in the Royal Gardens, and who left about four years ago, died at Brentford in February last from influenza. He will be remembered as one of the minor poets, having won a local reputation as a rhymster and reciter. He also won notoriety by his birthday letters to Mr. Gladstone, which were specially noticed in the press.

the other and surviving Executor. Probate being granted under certain Limitations. **Former Grant** at Salisbury May 1861.

**NISBET** formerly **INNES** } **Mary** otherwise **Mary Walker.**

Personal Estate £444 10s. 6d.

7 March. The Will of Mary otherwise Mary Walker Nisbet (formerly Innes, Spinster) late of 4 Wardle-terrace in the Borough and County of **Newcastle-upon-Tyne** Widow who died 7 February 1882 at 4 Wardle-terrace was proved at **Newcastle-upon-Tyne** by Francis Smith of 18 Eskdale-terrace Newcastle-upon-Tyne Merchant and James Forsyth of 6 Roxburgh-street Kelso in the County of Roxburgh in North Britain Ironmonger the Executors.

**NISBET Robert Parry Esq.**

Personal Estate £52,779 8s. 1d.

17 July. The Will with a Codicil of Robert Parry Nisbet late of Southbroome House Devizes in the County of **Wilts** Esquire who died 31 May 1882 at Southbroome House was proved at the **Principal Registry** by John Hervey Astell of Woodbury Hall in the County of Bedford Esquire and Harry Curtis Nisbet of 35 Lincoln's-Inn-fields in the County of Middlesex Esquire the Reverend John Marjoribanks Nisbet of 16 Bedford-square in the County of Middlesex Clerk Rector of the Parish Church of St. Giles-in-the-Fields in the County of Middlesex the Nephews and Caroline Sibella Nisbet of Southbroome House Spinster the Daughter the Executors.

**NISBETT George.**

Personal Estate £433 10s.

27 September. The Will of George Nisbett late of 60 Queen-Elizabeth-street Horselydown in the County of **Surrey** who died 18 July 1882 at 60 Queen-Elizabeth-street was proved at the **Principal Registry** by James Masters Nisbett of 4 Thomas-street Horselydown Corn Lidger the Nephew the sole Executor.

**NIVEN Alexander.**

10 November. The Confirmation of the Commissariot of **Wigtown** dated 25 September 1882 of William Niven of Portpatrick the Brother Robert Bisset Shoemaker and Leather Cutter Stranraer and William Davidson Engineer Liverpool as Executors Nominate of Alexander Niven Postmaster of Portpatrick who died at Portpatrick 29 July 1882.

**NIVEN James.**

Personal Estate £281 10s.

4 July. Administration of the Personal Estate of James Niven late of Crosspool Sheffield in the County of **York** who died 21 May 1882 at Nether Cullean Maybole in the County of Ayr was granted at the **Principal Registry** to Hannah Niven of Crosspool Widow the Relict.

**NIVEN James Craig.**

Personal Estate £817 17s. 9d.

24 March. The Will of James Craig Niven late of the Borough of **Kingston-upon-Hull** Curator of the Hull Botanic Garden Company who died 16 October 1881 at Kingston-upon-Hull was proved at **York** by Thomas Lister Read of Newington Hall in the Parish of Kirk Ella in the East Riding of the County of York Gentleman and Ninian Niven of Kingston-upon-Hull Banker's Clerk the Son the Executors.

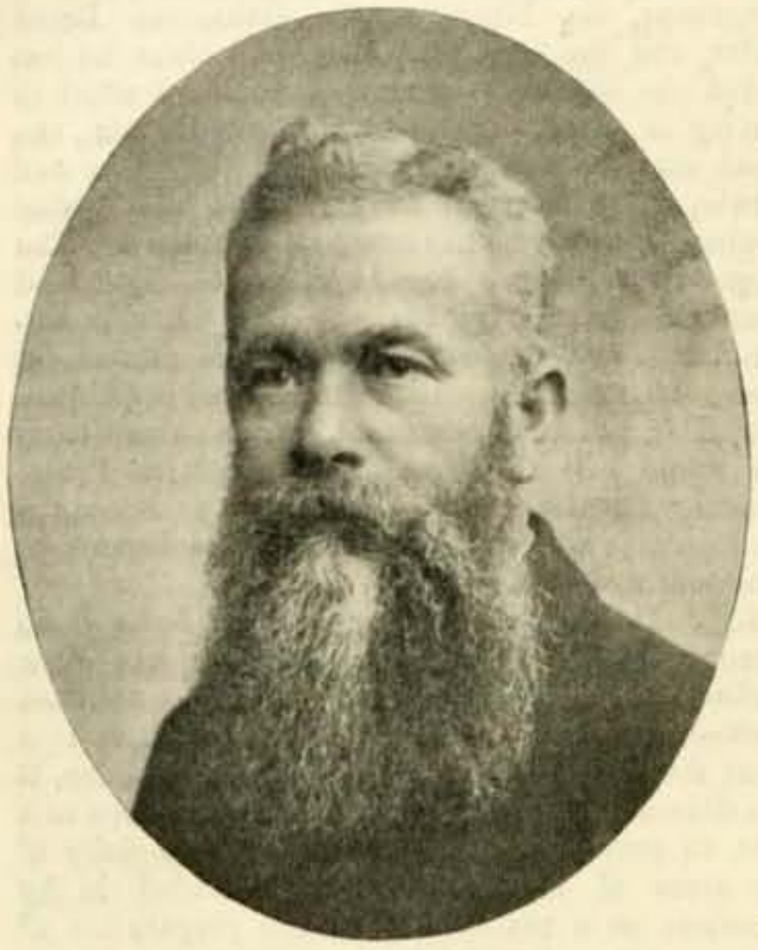
**NIVON Antonio.**

Personal Estate £6,403 6s. 7d.

15 April. Administration (with the Will) of the Personal Estate of Antonio Nivon late of Santa Efigenia in the District of Juchitan State of Oaxaca in **Mexico** Merchant who died 7 February 1881 at Tonala in the District

## MR. GEORGE NORMAN.

ONE of the recipients of the Victorian Medal of Honour is gardener to the Marquis of Salisbury at Hatfield House, which onerous situation he has filled with much credit to himself since 1876. Mr. Norman is a Bedfordshire man, and entered the gardens of the late Mr. Magniac, of Colworth House, in that county, at any early age, and remained there for seven years, gleaning much knowledge of out-of-doors gardening as practised in those extensive gardens. Thence he removed to Baron Schroder's gardens, at The Dell, Egham, in the winter of 1869, and four months later he was promoted to be foreman under Mr. Ballantine. His stay at The Dell lasted till 1872, and then, after a brief interval spent in the Royal Exotic Nurseries, Chelsea, he was sent by Messrs. Veitch to the Duke of Sutherland's gardens, Trentham, Stoke-upon-Trent, Mr. Z. Stevens being then in charge of them. At Trentham he filled the post of foreman of the fruit department under glass. In 1873 he returned to Chelsea, and after a short time spent in the nursery, he went as general foreman to

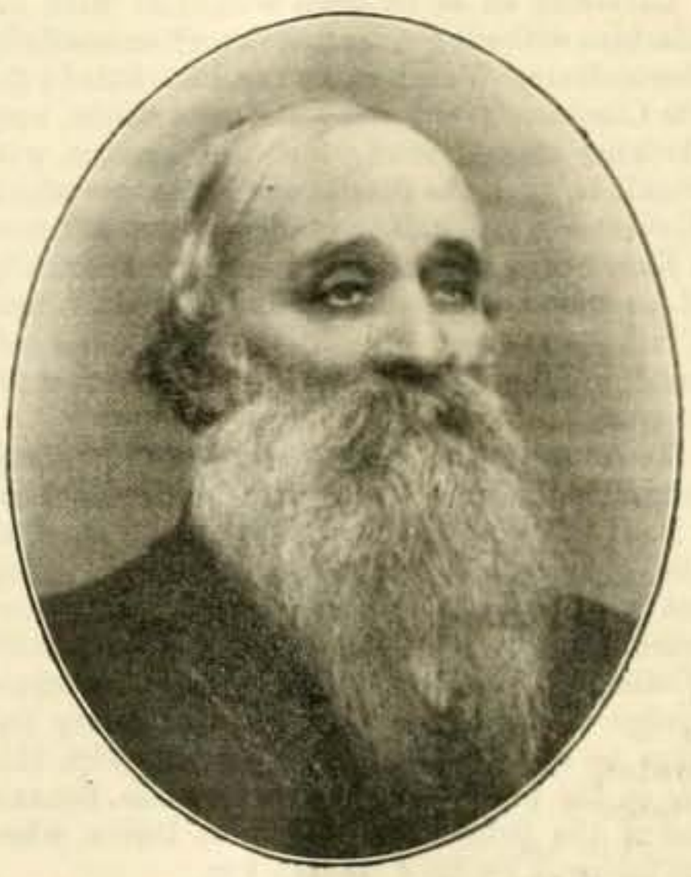


MR. GEORGE NORMAN.

Linton Park, Maidstone, where he remained till 1876, when he obtained the head gardener's post at Hatfield.

The subject of our note has had, as will be seen, a varied experience in large establishments which has stood him in good stead in his present situation. Hatfield has extensive kitchen gardens; much fruit is grown on bush-shaped and dwarf-standard trees, and on the high walls surrounding the gardens, and in the numerous vineries, Peach-houses, Strawberry-houses and pits, which are taxed to their utmost capacity, more especially during the "season." When we are told that at certain dinner parties, forced Strawberries to the amount of fifty to sixty pounds weight are required, and that Peaches and Nectarines are supplied in proportion, we can understand the great scale on which not alone fruit, but every kind of product is cultivated in those gardens. For a gardener to visit Hatfield and not inspect the house department is to miss a great treat, for beyond the fact of the enormous quantities of fruit produced in the houses, and the general good cultivation to be noted, there are several objects that are in their way quite remarkable. For example, Royal George Peach-tree, grown on the extension method, covers a roof space of 10 feet by 50 feet or hereabouts, and carries every year from 300 to 400 fruits, without being in any way impaired in vigour. In another house a Lord Napier Nectarine, whose branches are trained equidistant horizontally, the young shoots being tied-in to the branches pretty closely, bears 300 fruits annually. It measures 36 ft. × 11 ft. The Brown Turkey Fig-trees in this house were heavily loaded with fruits, unripe, but of good size in spite of their numbers.

The Vines in the various vineries are a thriving lot, affording good promise for the current year. It is seldom that more than one variety is grown in one house. Of course, we expect to find Black Hamburgh and Foster's Seedling in one vinery, also Black Hamburgh and Madresfield Court, and Gros Colmar and Muscat of Alexandria, but the majority of the varieties grown have a vinery to themselves. The earliest crop of Hamburghs are now colouring fast, and will be fit for consumption in a fortnight; and as the Grape room still contains a number of very well preserved bunches of Lady Downe's Seedling, Mr. Norman will be enabled to supply his employer's table with old and new Grapes at one and the same time. The Strawberry-houses are filled with many hundreds of plants of Royal Sovereign, with fruit in different stages of development. Of the other features of the gardens we may be able to refer on some future occasion.



MR. WILLIAM BRADBURY LATHAM.

## MISS ORMEROD, LL.D.

THE services to agriculture and horticulture rendered by this lady are too widely known and appreciated to demand lengthened notice. Devoting herself for many years to the study of economic entomology, she has been the go-between between the men of science and the practical cultivator, and has been the means of diffusing a vast amount of useful knowledge among a class not easily reached nor well-fitted to appreciate purely scientific research. Miss Ormerod was for many years the Consulting Entomologist to the Royal Agricultural Society.

## MR. JAMES SWEET.

A MARKET NURSERYMAN.

MR. R. IRWIN LYNCH

IN all the instances there have yet been of the award of the Victoria Medal of Honour, we doubt if there has been one in which the person selected for the honour had less expected such a distinction than did Mr. Sweet. Yet he is an excellent representative of the great industry that has been described as "Market Gardening under glass," and has done a considerable work in its development. It is true that Mr. Sweet is not the largest of such "growers" at the present time, but it is equally true that he was in the front line of workers when many of those best known to-day were at school, and some of them have been Mr. Sweet's apprentices.

Though born in London, Mr. Sweet's early childhood was spent in a gardener's cottage in the suburbs, and there he appears to have acquired a love for plants, that has increased ever since. Returning to London for his schooling, he used to look up at the trees at Hampstead Heath, and feel that if he could not become associated with Nature in a more or less intimate manner, he would not succeed at anything.

Fortunately, young Sweet had a sensible and a good father, who was anxious to obtain for his boy the calling that most appealed to his nature. Accordingly, a visit was paid to the late Mr. Geo. Glenny, of Fulham, who had a wide reputation as a judge of florists' and other flowers; but his establishment proved to be a very small one, and he asked a premium exceedingly high. Young Sweet had sufficient tact at that early age to know that the place did not afford scope for obtaining

# THE GARDENS OF MR. J. B. JOEL, AT CHILDWICKBURY, ST. ALBANS.

## Interview with Mr. Thomas Nutting.

LIKE Sir Ernest Cassel, Mr. J. B. Joel has a love for charming flowers, and his gardens at Childwickbury are full of features of interest. When I visited them a few weeks since, the gardener, Mr. Nutting, warned me that I must not expect to see anything special.

"We go in for what I might call general gardening," he said, "and, without specialising, endeavour to do the best we can, with our facilities and accommodation, to keep up the usual supply required in an ordinary establishment."

This estimate of the resources of Childwickbury gardens I found was a very modest one, and that there are several exceedingly attractive features. Beginning our tour of the ten acres of pleasure grounds with the flower garden on the south-west front of the mansion, I was struck by the effect of the combination, and asked Mr. Nutting to give me the details.

"There are four beds of Geranium Paul Crampel," he said, "four of Henry Jacoby, four of Heliotrope President Garfield, edged with Lobelias of different shades of colour. Four pear-shaped beds are filled with Cannas, Abutilons, Lobelia cardinalis, and Begonias Bertini and Vesuvius, edged with Lobelia Katherine Mallard. In the middle of the centre bed is a large pillar of Crimson Rambler Rose, and the remainder is made up of standard Fuchsias Rose of Castile and a groundwork of Verbena Miss Willmott. The four oval beds, with Crimson Rambler in the centre, have a groundwork of Kœnigas, with Kochias as dot plants, edged with Viola White Emperor."

"Have you tried this combination before?"

"Yes; it was because I tried it last year, and it gave so much satisfaction, that I repeated it for this summer. The spring bedding here consisted of Wallflowers, in various shades of colour to harmonise, edged with Viola Kitty Bell, White Emperor, and Sylvia. Aubrietias, Forget-me-nots, and Polyanthus were also used, but not bulbs in this part of the garden."

"I notice that you have some Crimson Ramblers as pyramids standing out on the grass."

"We do all we can to increase the element of brightness. Thus, we plant flowers on the edges of the shrubberies, as, for instance, Fuchsia Ballet Girl, seven feet high, and Zinnias beneath."

"And you have Violas all round your clumps of Rhododendrons?"

"That is quite a practice. The Rhododendrons themselves do admirably in an exposed position in loamy soil."

**Climbers on the Mansion.**

"When were the climbers planted on the north-west side of the house?"

"Twenty-five years ago by the late Sir Blundell Maple, who enlarged the house, and made many additions to the gardens. The climbers include Ivies in variety, Clematis flammula, Cotoneasters, Loniceras, Wistarias, and Fuchsias. All through, you will observe that we avoid formality. Of the beds here, there are five with Calceolaria amplexicaulis, edged with the two varieties of Begonias already mentioned—the only two I use for bedding—and dwarf standards of Fuchsias; two with standard and dwarf Heliotropes, with Violas as groundwork, and an edging of white Lobelias; and two of Geranium Paul Crampel and Henry Jacoby."

**Beds of Herbaceous Plants.**

"On the lawn, you appear to have a number of beds made up of herbaceous plants."

"With anything else that harmonises. In the mixed bed close to us there is a pillar Rose,

MR. NUTTING.

Dorothy Perkins, in the centre, and Antirrhinums, Montbretias, and Californian Poppies are worked in, the edging being formed of Viola Kitty Bell. Another herbaceous bed has Mrs. Flight in the centre, with Delphiniums, Asters, a row of Carnation Raby Castle, with an edging of Viola White Emperor. Subsequently, we use Gladioli and Gaillardias, and later, Dahlias."

"Is that Rose in the centre of another singularly pretty herbaceous bed, Gruss an Teplitz?"

"Yes, and it is one of the best varieties for the purpose. The bed is forty feet long, is dotted with Marguerites, Tritomas, and Golden Privet, with rows of Pentstemons (seedlings), and Antirrhinums in front, and an edging of Viola Maggie Mott."

"The red of the Roses, the pink of the Pentstemons, and the orange tint of the Antirrhinums, blend well together. How do you fill these beds in spring?"

"With masses of Myosotis. Both in summer and spring we try as far as possible to harmonise the herbaceous with the flower beds. Tulips are largely used in spring, both for decorative purposes and for cutting. We chiefly rely upon mixed Darwins, and May-flowering varieties, such as Billietiana, elegans, retroflexa, Picotee, Gesneriana, Mayii, and macrophila."

Pursuing our way to the north front, where the main entrance is, Mr. Nutting pointed out, on a recent extension, pillar Roses and Clematis in variety, which, planted two years ago on what was formerly the site of an old farmyard, are making excellent growth.

**How to Preserve Lawns.**

"The lawns look so well, I should like to know how you manage to keep them in such a condition?"

"The only assistance they get is soot, of which, directly we leave off mowing, we put on fifteen bushels to the acre. The principal clumps of Rhododendrons, which give masses of flower, are here. Ghent Azaleas are another feature. Golden Privet, white Violas growing high, and later Hyacinthus, are planted to keep up the blooming season. The two large inside beds of Rhododendrons are embellished with Euonymus radicans variegata, and Viola Ida Fergusson as edging. At the base of the trees in this locality, we plant Daffodils, and the grass is allowed to remain uncut until the foliage of the bulbs is sufficiently advanced."

"Judging by the glorious bank of Laurels extending to the stables, they find the soil congenial?"

"I am never tired of advocating the effect of the green of clumps of Laurels, but to grow them properly, the knife should be used for pruning."

"Amongst the trees there are some fine specimens of old Elms. What other trees specially flourish?"

"Copper Beeches, Abies pinsapo, Cedrus atlantica glauca, Limes, Oaks, and single scarlet Thorns."

"What is your plan with regard to the three big beds close to the house?"

"The colour scheme in the beds is red, white, and blue. We get red from Salvia Fireball, and shades of red and pink from the Rose Mrs. Flight in the centre, and Begonias Bertini; white from the groundwork of Marguerites and Nicotiana affinis; and blue from Salvia patens and Viola Archie Grant, another feature being the standard Fuchsias. By the way, we plant out from two hundred to two hundred and fifty Fuchsias. In the centre bed, free use is made of the most notable of all Roses, Caroline Testout; Laurette Messimy is also used, with Carnation Hermione—the Coronation flower—and English Irises of different shades of colour. The edging consists of Viola Magpie. In spring there is a groundwork of purple Violas. Otherwise the bedding is the same as on the other side of the mansion, to which we had better now return."

"How many years since were the fine specimens of Kentia Fortunei in the Palm house planted?"

"Twenty-five. They were in 'thirty-two'-size pots, but lately we have had to cut a hole in the floor to sink the tubs. The principle in the Palm house is to keep it green,

so that, except at the entrance, we do not use flowers to decorate it."

**Light Colours on Dark Backgrounds.**

"Outside," continued Mr. Nutting, "we lose no opportunity of introducing light colours on a dark background."

"I was about to comment on the striking effect of the Golden Gem Calceolarias and the Geranium Paul Crampel on a dark background."

"Yellow and scarlet; while in another direction, also on dark ground, with Hollies at the back, are more Calceolarias and blue Violas. In the vicinity of the tennis and croquet lawns there are several bits of colour, noticeably patches of the Golden Gem Calceolarias."

"What is the character of the ruin which you have covered in a corner of the lawn?"

"The 'ruin' is of our own making, and was designed to form a background. It consists of old Irish Ivy made into arches. Any amateur can carry out the design, the only expense being the cost of a few wire arches and plants."

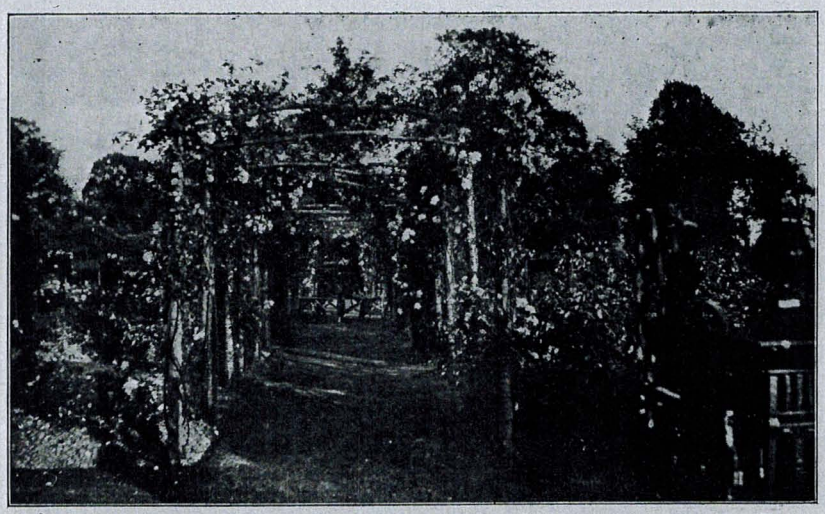
"Their inexpensiveness is in contrast to the handwrought gates of the Rosery, with its wealth of Golden and common Yews on either side."

THE NORTH FRONT OF CHILDWICKBURY HOUSE.

"The Rosery was made about ten years ago. In the spring the grass is gay with Crocuses and Daffodils. The Rose pergola in the centre is mainly covered with Euphrosyne, Crimson Rambler, Dorothy Perkins, Gloire Lyonnaise, Bouquet d'Or, Safrano, William Allen Richardson, Gloire de Dijon, and Flora. Facing a centre arbour are clusters of Penzance Briers, Lord and Lady Penzance, Anne of Geierstein, and Rose Bradwardine."

"What are the weeping varieties planted at intervals?"

"Felicite Perpetue, Reine Olga de Wurtemburg, Dorothy Perkins, Aglaia, Virginian Rambler, Bennett's Seedling, and many others. In the long bed divided into five sections, with five varieties in each, with Reve d'Or trained on a wire trellis so as to cause a break in the flatness—the Roses include Abel Chatenay, Marie van Houtte, Eugene Verdier, Alfred Colomb, Hon. E. Gifford, Richmond, La France, Crown Prince (a very fine old variety), Captain Christy, Marie Baumann (still one of the best), and General Jacqueminot, the sweetest of all. I attribute their satisfactory growth to hard pruning."



THE ROSERY AT CHILDWICKBURY.

**The Orchard Pleasure Ground.**

"Shall we take the kitchen garden and glass next?"

"You have not seen the orchard pleasure ground yet."

"When was this made?" I enquired, as we entered another charming quarter, combining flowers and fruit.

"It is an orchard converted into a pleasure garden. The garden, as you now see it, was laid out ten years ago. As in the Rosery, simplicity of style has been aimed at. The fruit trees are in a line, the grass paths are twelve feet wide, and the serpentine borders are ninety to one hundred yards long."

"Tell me, please, the leading contents of the borders."

"There are clumps of Sweet Peas right along the borders, including the best varieties of recent introduction. There are clumps of Stocks and double Pyrethrums, Clarkias, Pæonies, Phlox, Spiræas, Poppies, Michaelmas Daisies, Sunflowers, and Violas in variety, the edging being of Mrs. Sinkins, the popular Pink. The Apple pergola in the centre is decorated inside with two rows of Madonna Lilies, and outside is flanked with two rows of Lavender. The pergola is one hundred yards long, and when furnished with fruit, in July, presents a very pleasing effect. The grass of the orchard pleasure ground is constantly mowed and rolled. Even in the Nut grove, between each Nut tree, we plant clumps of Snowdrops and Scillas alternately in the spring, and at the end of it there is a background of flowering and foliage shrubs, with a plantation of Bamboos, Roses, and Spiræas, edged with Violas."

"And you continue your process of beautification in the kitchen garden?"

"We do our best, as you perceive by some of the Rose arches."

"What is the Rose on arches which makes such a magnificent blaze of colour?"

"Leuchtstern. Further, in the centre walk are also standard Roses in variety, and a good, broad band of Montbretias, with what I may call the everlasting Violas in variety. Near the centre of the wall, and close to the Lily pond, Poppies are just now making a great show, and at the far end of the kitchen garden is a long border with a grass path, devoted entirely in succession to Tulips of the varieties already named, Irises in variety, and Carnations Raby Castle."

"You do not, I gather, grow Chrysanthemums for showing?"

"No, for house decoration and cutting. The Japanese varieties of Chrysanthemums are most favoured."

"Do you grow many varieties in your plant houses?"

"Malmaison and Tree Carnations are grown to a considerable extent. In the general greenhouse, Spiræas Queen Alexandra and Peach Blossom are grown. Here, too, are some Cattleyas. In the stove are a few more Orchids, chiefly Cœlogyne cristata, Pancratiums, and Crotons in variety. The favourite Orchids are the Cattleyas (gigas), and Cypripediums."

**Grapes and Peaches.**

"You appear to have a good crop of Grapes in the Vinery we are just entering."

"They are Muscats and Madresfield Court, but I only consider the crop an average one. They show, however, that twenty-eight years' close pruning, and only a border outside, do not militate altogether against successful cultivation. In the next Vinery, in addition to these varieties, there is Black Hamburgh. The border here is inside; it is only eighteen inches deep, and I do not agree that deep borders are a necessity. For very early and very late work, inside borders are best, but for mid-season varieties an outside border does very well. The late Vinery, which was planted three years ago, contains Muscats, Alicante, and Gros Colmar, and the old Vinery, said to date back sixty to seventy years, Muscat, Black Hamburgh, and Madresfield Court."

"Have you many varieties in your Peach houses?"

"In the small one we have only early Gros Mignonne, Royal George, and Lord Napier. Royal George is also grown in the two other Peach houses, and the varieties include Noblesse, Dymond, and Nectarine Pineapple. From June we get a very fair succession of Peaches until they are ripe on the walls."

**Seven Crops of Melons in a Year.**

"You seem to do well with Melons."

"We get seven crops out of one house in the season; the varieties are Eminence, Triumph, Emerald Gem, and Canteloupe, which I have grown for years. In the Palm house, in the

centre of the range, there are a number of flowers for decoration. With regard to Violets, you may like to know that I find Marie Louise the best all-round variety; Mrs. Arthur the best dark double; Princess of Wales the best single; and Lady Hume Campbell the best late variety."

"Which do you consider your best Apples?"

"Amongst dessert varieties, I may mention Allington Pippin, Cox's Orange, Court Pendu Plat, Beauty of Bath, King of the Pippins, Duke of Devonshire, Fearn's Pippin, Mabbott's Pearmain, and Sanspareil. The good kitchen varieties include Lane's Prince Albert, Lord Derby, Bismarck, Cox's Pomona, Stirling Castle, Frogmore Prolific, Golden Spire, Keswick, Lord Suffield, Lady Henniker, Newton Wonder, Peasgood's, Schoolmaster, Warner's King, and Late Admirable."

"I should be glad to have a few words about your Strawberries."

"We find that Royal Sovereign, The Laxton, Laxton's Reward (this variety has produced some remarkably fine fruit this season), Bedford Champion, Trafalgar, and Givon's Late Prolific, do as well as any varieties we have tried. Our practice here is to make a new plantation every season. We have three beds, doing away with one each year. We usually trench up a piece of ground from which an early crop of vegetables has been taken, and make our new bed about August, putting the plants in two feet apart each way."

**Vegetable Cultivation.**

"You must grow a great quantity of vegetables. Are there any points you care to mention?"

"With regard to the cultivation of vegetables, no special efforts are made, neither do we bind ourselves to any particular rotation of crops. Wherever possible, deep cultivation and plenty of farmyard manure, with liberal additions of burnt refuse, ashes, soot, and lime, is the system carried out. Peas are largely grown, and we rely upon such tried varieties as Pilot, Gradus, Early Morn, Duke of Albany, Alderman, Royal Salute, Autocrat, Gladstone, and Ne Plus Ultra. From these we usually pick up to the middle of November. Amongst other vegetables, we depend upon old, tried varieties, of course, giving newer ones a trial, and when found suitable adding to our list."

"Last of all, I should be glad to know a little of your own experiences, Mr. Nutting."

"There has been nothing very exciting in them. I started work in the early 'sixties' in Messrs. Osborne and Sons' nursery at Fulham. From Fulham I went into private service, and spent many happy years under various good gardeners, of whom I have pleasant recollections, particularly of the late Mr. William Pragnell, of Sherborne Castle, Dorsetshire, one of the best vegetable and fruit growers of his day; and, later, of Mr. A. Jamieson, of Haigh Hall, Wigan, who is now living in happy retirement in Cheshire. During the last quarter of a century I have had charge of these gardens, and in that time I have had a fair share of success as an exhibitor in a small way. Exhibiting, however, has always been a secondary consideration."

Alfred Wilcox.

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Next week the wonderful garden on a mountain side, belonging to Mr. M. A. Ralli, of Mia Hall, Dyserth, North Wales, will be described.

A VIEW OF THE POND AT CHILDWICKBURY.

THE GARDENER'S LODGE AT CHILDWICKBURY.

The name Forget-me-not, now given to the beautiful Myosotis palustris, was by our ancestors applied to Ajuga chamæpitys, a plant so rich in turpentine that, once tasted, it was not easily forgotten.

The common Larch, although it is now grown so largely in this country, is not a native of Britain, but is indigenous to the Alps and Carpathians. It was not introduced into England until 1629, and into Scotland nearly a hundred years later. Besides its value for timber, the bark is used for tanning, and it also supplies Venice turpentine.

## Trimming Hedges.

An annual clipping of evergreen and other hedges is necessary in order to maintain density and regularity of growth. From the middle of July to the middle of August is the best time to carry out the work. In dealing with the oval-leaved Privet (Ligustrum ovalifolium), and its golden-leaved variety, aureum, they should be closely clipped, while thin places that may occur at or near the basal parts should be furnished by drawing down and securing to neat stakes a few branches from the denser parts immediately above.

The Holly forms a splendid hedge, and its glossy leaves present a cheery appearance at all seasons. One often sees amateurs engaged in clipping Holly hedges in October. It should be made clear that the end of July is best, as sufficient time is then allowed for the plants to make further but not unruly growth, and consequently the hedge is relieved to a great extent of its stiff and formal appearance.

**Avoid Shears.**

The Portugal Laurel is also a valuable subject, and vastly superior to the common form. In addition to being trimmed early in June, it should again be brought into shape in August. Great is the pity that the shears should be so often employed in dealing with these plants. Let the pruning knife be used, and thus obviate undue mutilation.

Among deciduous subjects employed as hedge plants, the Hornbeam, Beech, and Hawthorn play an important part. They are generally trimmed near the end of August, before the wood has become excessively hard. The operation can, of course, be carried out at any time during winter, but it entails more arduous work.

**Ornamental Subjects for Hedges.**

It is both interesting and gratifying to note that highly ornamental subjects are now taking the place of the species mentioned, when new hedges are being formed. The more robust of the rambling section of Roses offer splendid material, and only require rough supports to resolve themselves into masses of picturesque beauty. Further, if a fair number of evergreen or practically evergreen kinds are interspersed, we get a furnished appearance in winter.

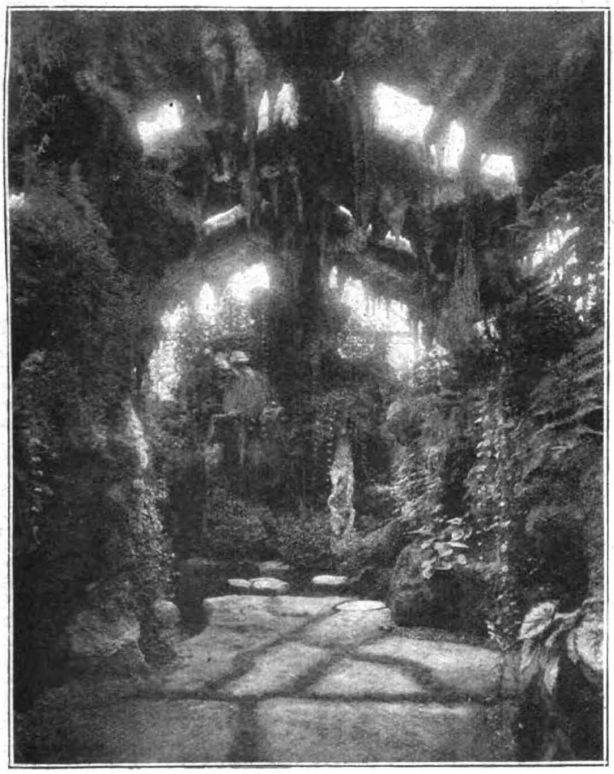
The Clematises, Cotoneasters, Cratægus Lelandi (pyracantha), and a host of other subjects may be pressed into service, not forgetting that fine old plant, Pyrus japonica, or its improved varieties, whose value for this work is fully recognised. Fine examples of hedges formed of this plant are often seen in Western England, and other than in very bleak and cold districts it can be relied upon to contribute much brilliance in the early part of the year, with bright, showy fruit later in the season.

Walter H. Aggett.

# A WONDERFUL GARDEN ON THE SLOPES OF THE SEVERN.

## Interview with Mr. Henry Oakley, of Dewstow

IN the county of Monmouthshire, but close to the border of Gloucestershire, on the slopes of the Severn tunnel, is one of the most wonderful gardens in the United Kingdom. The owner is Mr. Henry Oakley, under whose initiation and supervision the gardens were planned and have since been frequently developed. The site fifteen years ago, when Mr. Oakley became possessor of the Dewstow estate, was ordinary meadowland, with cattle grazing upon it, but the possibilities were apparent to him, and his expectations have been more than justified. The only difficulty in writing about the pleasure grounds at Dewstow, which it was my privilege to visit on a perfect summer day in July, is absolute inability to convey in print more than a faint idea of its manifold charms. Some of them may be imagined from the accompanying illustrations of rockeries, Ferneries, and water gardens; but the fascination of the colouring of flowers of almost every conceivable kind, the surprises of the grottoes and rocky chambers below the surface, must be seen to be appreciated.



THE FERN CAVES AT DEWSTOW.

### THE OUTLOOK.

Soon after my arrival at the house, which is approached from the entrance with a picturesque lodge at the gates, through an avenue of Chestnuts, affording glimpses sufficient to whet the appetite of garden lovers, Mr. Oakley began to show me the succession of water gardens which is one of the great features of Dewstow. As we commenced our stroll, I remarked upon the prospect, which embraces not only a fine view of the famous river whose waters wash the shore, but in the distance can be seen the rippling waves of the channel at Portishead, Clevedon, and Weston, on one side, and Penarth on the other

### AN EVEN TEMPERATURE.

"Do you face south?" I enquired, as my host pointed out Avonmouth directly opposite Dewstow on the other side of the Severn, rapidly merging into the sea.

"Yes, and we have also the advantage of enjoying the most even temperature in the country. The best Barley is grown in this vicinity, and to grow the best Barley, it is necessary to have an even temperature day and night. In addition to not suffering either from extreme cold, or extreme heat, we experience little wind. The climatic conditions are, in fact, as good as they could be in the United Kingdom."

### THE VALUE OF SLOPES.

"I suppose that in choosing the site, you were influenced by the slopes as well as by the outlook?"

"Slopes are of great value in landscape gardening, and they materially facilitated the process of laying out the place. The primary object here is to turn natural charms to the best account, and, generally speaking, to make the gardens as beautiful as possible. There are neither formal divisions, nor formal bedding."

### ROSES ACCORDING TO FANCY.

"What is the purpose of the latest extension which I see you are making?"

"A bog garden, but it is not sufficiently advanced to say anything about it. The soil, sand and clay, suits Roses. I go to shows and pick up varieties whose colouring, foliage, or habit catch my fancy."

"Obviously, among those which have caught your fancy is Hiawatha."

"Certainly, Hiawatha is one of my favourites; but American Pillar is better still. Crimson Rambler and Dorothy Perkins are not easily beaten, and I think Dorothy Perkins surpasses Hiawatha as a standard. For white and red, in conjunction, Wallflowers and Crimson Ramblers are very effective."

### THE MOST FREE BLOOMER.

"Judging by the wealth of blooms, Dorothy Perkins is at home on an iron fence."

"Yes, but Roses prefer wooden to iron fences. Altogether, I find Dorothy the most free bloomer of all varieties. Cloth of Gold is a striking yellow, and on a wall not far away from it, Dorothy Perkins and American Pillar give a gorgeous display."

### ORNAMENTAL TREES.

"The trees," continued Mr. Oakley, as we walked up and down the slopes, "which are dotted about on the lawns, were planted about ten years ago, and chosen entirely for beauty. One of the most attractive is Abies glauca, which though a slow grower, deserves to be grown because of its lovely silvery foliage. The Weeping Ash, the Cupressus, and the variegated Elm do well."

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"Along the banks of one of the water gardens, Acacia rosea and Acer negundo harmonise in colour, and further on the delicate colouring of the latter adds to the beauty of the Cedrus deodara, and the stateliness of the Copper Beech. Camellias bloom freely in sheltered positions."

### ATTRACTIVE FEATURES.

With a glance at a delightful fountain garden with turfed paths and pretty flower borders; a Lily pond and water garden constructed three years ago by Messrs. Pulham, whose services have often been called into requisition; a brilliant border of Sweet Williams; a fine collection of Delphiniums, presenting contrasts of dark and light blue; a combination on the lawns, in oval beds, of Salvias, Perillas, Abutilons, and Ageratums; great spikes of mauve flowers under a wall; specimens of the variegated Rush four feet high; a lovely border of light blue Myosotis, we made our way, up a slight ascent, to the range of houses. On either side of the gravel path is a border of scarlet and Ivy-leaved Geraniums, Pyrethrums Golden Feather, and Lobelias, with a background on one side of Maize, Castor-oil Plants, Nicotianas, and Marguerites. In the first house we entered was a collection of Humea elegans, and a number of Statices grown in pots and yielding, under ordinary treatment, their deep blue flowers all through the summer. Then, to my astonishment, I renewed my acquaintance with the finest private collection of Todeas in the country. I was not, however, aware of the fact until Mr. Oakley mentioned that he bought the Ferns three years ago from Captain Bellfield.

### THE TREATMENT OF TODEAS.

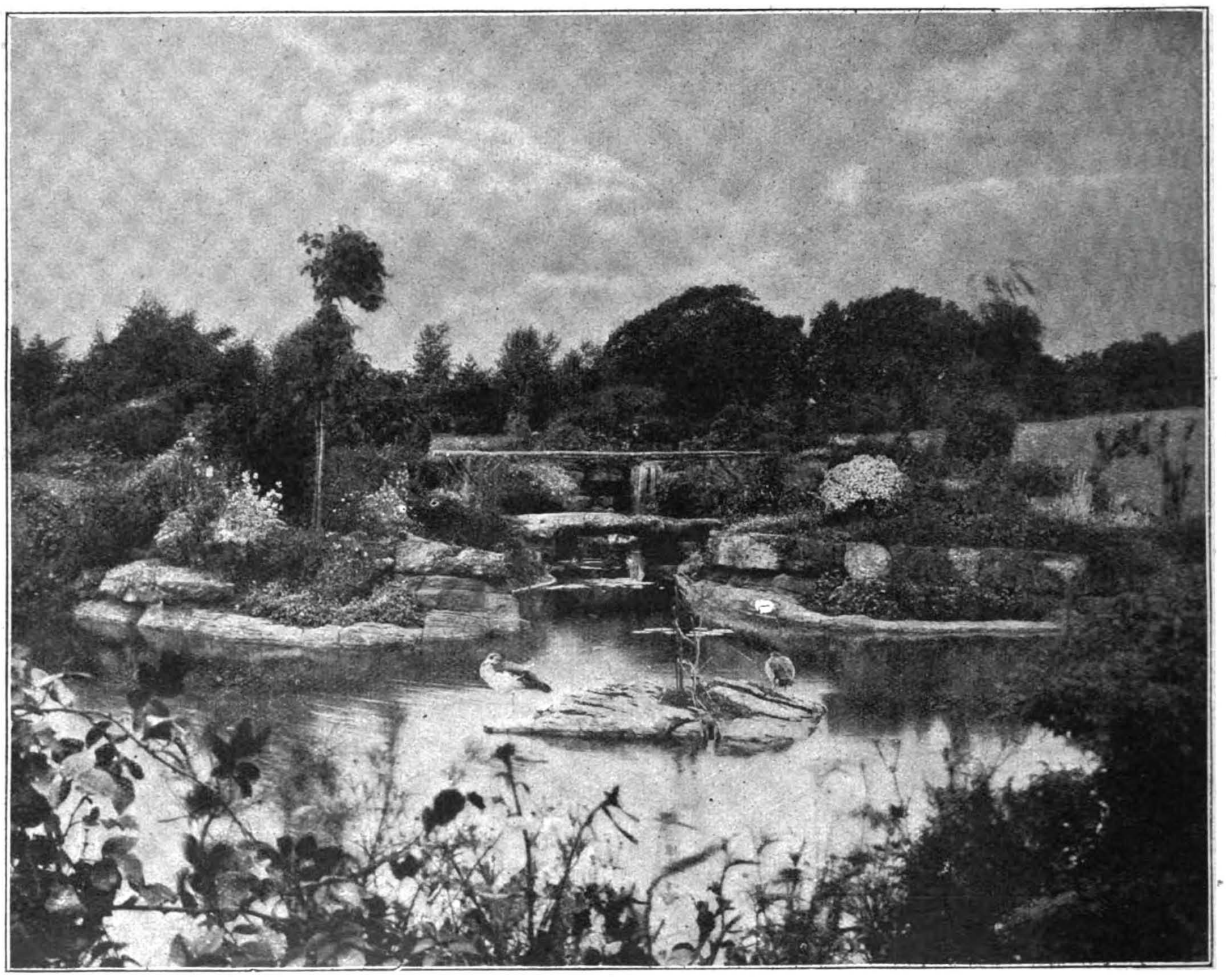
"It was at Captain Bellfield's I saw them," I rejoined, "but they show up better here because their quarters are not so dark."

"Todeas do not appreciate air, heat, or the sun, but they can do with a little light. They like to live with the water standing on the fronds. The fronds of this beautiful New Zealand plant are marvellous, and the age of some of them exceeds a century. They grow very slowly, and one quite small is ten years old. In the two houses there are upwards of thirty of varying sizes. They need a great deal of attention, and are sprayed every morning and evening. Heat, of course, is fatal to them."

"The Liliums are one of the principal features of the next house, in which are also Begonias, Lobelias, Browallias, Primula obconica, and Celosias, grown in quantity for colour effect. In the centre Schizanthus and Pelargoniums, the former in very small pots, are mixed. I am very fond of Gloxinias, both because of the richness and purity of their colour. Anthuriums and Alocasias, Citrondenias, Bertolonias, which require a great deal of heat and a good deal of attention generally, are grown in the next house. There are only a few Orchids, and we grow them altogether in one house, obtaining the best results. It is necessary to know which varieties will do well together, but Cattleyas, Lælias, and Dendrobiums, do as well in the same house as if they were grown separately."

"Where does the subterranean passage lead us?"

"To the fruit houses and Fernery. In the former we get in as many trees as we can, finding room for fifteen where only four are ordinarily grown. If you want a quantity of fruit you must plant a quantity of trees. The Peach trees are renewed every ten years, and we get some good fruit from them. The Nectarines, Early Rivers, are of great size, and of the Peaches, Royal George is about the best."



ART AND NATURE HARMONIOUSLY MINGLED AT DEWSTOW.

### REX BEGONIAS AND POROUS STONE.

"The Fernery, which we next explore, was built about six years ago by Messrs. Pulham. As to its contents, nothing, I think, is more remarkable on the walls than the show of Rex Begonias. They grow wild and seed themselves. The porous stone is probably the cause. Bamboos, Acers, Asparagus plumosa, and the purple Coleus are at home here, and between the stones of the floor, Selaginellas thrive easily. The sun does not penetrate through the roofs, and the light, though good, is subdued."

### THE WINTER GARDEN.

Crossing the water, with goldfish in it, by means of stones, and noting in the tunnel quite purple leaves of Rex Begonias, we ascended above the level to the winter garden. This house is in some respects the most interesting. Here, again, Rex Begonia flourishes

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luxuriantly; Tree and Maidenhair Ferns are at their best; Cobea scandens trails over the trellis; Bananas fruit; Bamboos reach the glass twelve to thirteen feet high; the Cyperus paperus, which grows on the banks of the Nile, flourish here; and Palms and Draceænas are strongly in evidence. Moreover, in addition to its horticultural charms, the winter garden contains denizens of a different kind, including doves, cockatoos, parrots of magnificent plumage, Java sparrows, toucans, and other birds, whose native sphere is the torrid zone. It was something of a transition to pass into the Vinery, with Muscats of Alexandria, and Buckland's Sweetwater, of not less varied hues, which also seed themselves; and Broom, with its flowers almost like a shower of gold. A little further on we are making a fresh tennis lawn, and here, too, are Roses in abundance. In their season, Roses dominate the gardens outside, and whenever the opportunity occurs, I add to the quantity, making use of them in every available shape and way."

ALFRED WILCOX.

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Next week: The gardens of the Earl of Portsmouth, at Hurstbourne Park, Whitchurch, Hampshire, will be described.

WATERFALL AND STREAM MARGINED WITH ROCKERY AND MORAINE PLANTS.

though the Pine house adjoining was far from commonplace."

"Outside the houses are borders of Antirrhinums and Nemesias, with an edging of Pyrethrum, and on the other side a bed of Roses mixed, while beyond the Golden Privet and variegated Ivy make a good background. Both have to be carefully trimmed in the spring. The rock garden, which is no longer at its best, contains a fairly large collection of Alpines and rock plants. Flowering just now on the outskirts are Anchusas and Delphiniums, and in different parts of the rockery Centaureas, Potentillas, Cistus in variety, Galegas, and the wild Sweet Pea. A combination in colour is provided by three plants of Dorothy Perkins on poles, with a groundwork of yellow Antirrhinums; and other contributors to the colouring element are Eschscholtzias, with their orange blooms, Nasturtiums of varying hues seeding themselves, and growing up the sides of the houses; Poppies

## *PAK-CHOI AND PE-TSAI.*

THE above are not characters in a Chinese romance, neither have they any geographical significance; they are simply Celestial Cabbages! But they are none the less interesting to those gardeners on the look-out for new and choice vegetables; and, like most things Chinese, they are quite unlike the English idea of a Cabbage, either in appearance or taste, favouring a Lettuce rather than a Cabbage. But the flavour is unique and extremely delicate, and a great change from our own coarser greenstuff.

**PAK-CHOI.**

Pak-Choi resembles Spinach Beet in growth, and is not unlike it in taste. The leaves are two feet long, and very green, and the stalks pure, glistening white, which gives the plant an ornamental value. The whole plant may be boiled as Cabbages usually are, or the stalks may be separated, and sent to the table as Asparagus. This Chinese vegetable is very hardy. Seeds may be sown either in spring or late summer; but the spring sowing often proves abortive, owing to the habit of quickly running to seed, to which the plants are most subject. The best time to sow is the end of July or beginning of August. This ensures an early and mid-winter crop. Sow in moist drills, and thin out the seedlings well.

Pe-Tsai is not nearly so hardy a subject, and seeds must be sown in early summer for use in autumn and winter. This is really a *salad* Cabbage, as it is eaten raw as well as boiled. In appearance it favours the Cos Lettuce. The heads are moreover very compact and firm, and the pale green leaves are prettily crimped and wrinkled. The whole plant makes a good salad ingredient, and when boiled, and seasoned with butter, etc., it is one of the most excellent salads it is possible to obtain.

Both Cabbages are of most easy culture, and are very quick growers. Anyone giving them a trial will discover serious rivals to the English Cabbage, Lettuce, or Spinach; for these Eastern plants really combine the characteristics of the three Western vegetables.

I do not know whether seeds can be obtained from any English firm; but they are stocked by Parisian seedsmen (the vegetables are used a good deal in Paris), and probably by many other Continental firms also.

M. A. BENNINGTON.

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of the Vinery a Polyanthus which, though several years old, has never yet flowered, except in Primrose fashion. It was one of a batch of seedlings, and when the others were planted out it was overlooked. The others all flower in the orthodox manner, but it has never done so. It might be taken for an ordinary wild Primrose, except that the blossoms and leaves are unusually fine. I suppose it is a reversion to type. But why? Separated from its fellows it has had no instruction in the way it ought to go—no model to imitate. If birds are imitative, why not flowers?

Mr. J. W. Odell.

April 10th.—It was formerly supposed that in grafted plants the stock had no effect upon the scion, except as regards freedom of growth, but this idea has been shown by M. Daniel to be erroneous. He has been investigating the subject for years, and has performed some very remarkable experiments, grafting together plants of the most diverse kinds. As the result he has conclusively proved that grafting may be a powerful cause of variation, a long, violet Aubergend, for example, when grafted on a ribbed Tomato, producing ribbed fruit. More remarkable still, in the case of a perennial Sunflower grafted on an annual variety, the stock by a curious process became perennial. In several instances the variations thus produced have been perpetuated by seed—*e.g.*, a new variety of forage Cabbage. There is also in cultivation a hybrid Potato—Edouard Lefort—which was originally obtained by grafting together Marjolin and Imperator, and which exhibits the characteristics of those two varieties. A fine field is opened up here for experiments—a field which should prove especially attractive to amateurs. The subject is treated at some length in the "Revue Horticole" of last September. M. Danie' believes that grafting offers a new method of improving the breeds of plants, and he has certainly gone some way to substantiate his belief. By its means he has succeeded in producing Grapes on varieties of Vines which are ordinarily infertile, and he is yet only at the beginning of his labours. The rule which he lays down is this: that if a plant is to be improved in any special feature, it must be grafted on a stock which is superior in that feature.

H. C. Davidson.

*(To be continued.)*

The next Congress of French Chrysanthemum growers is to be held at Lille, on November 6th to 8th, both days included. All interested in the subject are invited to attend.

## FAMOUS GARDENERS AT HOME.

No. 81.—Mr. J. W. ODELL, F.R.H.S., AT THE GROVE FARM, GREAT STANMORE.

THE name of Mrs. Brightwen is well-known as a writer of charming books, which attest her appreciation of everything attractive in the world of Nature. Her published works, "Wild Nature Won by Kindness," "Rambles with Nature's Students," "Inmates of My House and Garden," have been received with gratification by thousands. She is a Vice-president of the Selborne Society, and a Fellow of the Zoological and Entomological Societies, and her beautiful place, The Grove, Great Stanmore, is a sanctuary for birds of every description. Pheasants are fed from the windows, and squirrels go in and out of her dining-room. In the ornamental lakes all kinds of water-fowl are preserved, and wild ducks, teal, with the smaller reed-birds, flourish. To the courtesy of Mrs. Brightwen, and of Mr. Odell, the manager of the estate, and gardener, I am indebted for a delightful and instructive afternoon, during which I explored the treasures of one of the most lovely and remarkable gardens in the vicinity of London. The Grove is situated on the heights of Stanmore Common, and the great feature of the estate is its sylvan character. The house is of the old Elizabethan style, and the surrounding pleasure gardens and grounds are fifteen acres in extent, the estate being about 200 acres. Entering the gardens with Mr. Odell, I was at once struck by the manner in which the trees are treated. It is a point neither to lop nor cut the lower branches, and the result is that they present a very "bus'y" appearance, and add to the picturesque wildness of the scene.

The Grove, Great Stanmore.

When I asked Mr. Odell the special characteristics of the garden, he at once replied: "First of all, the shrubs and trees on the lawn, the specimen trees worth mentioning include the very large Tulip Tree, whose branches down to the ground. There are also, as you see, two very fine specimens of the Californian Red-wood; and the Oriental Spruce, with its down-spreading feathers, is generally very much admired. Of shrubs, we have large clumps of Rhododendron ponticum, and smaller ones of the hybrid varieties. The Chinese Paper-tree, which was planted about twenty years ago, is considered a very fine specimen."

"It is in the American garden, is it not?"

"Yes, in the Dell, where you also noticed a number of Bamboos, including the yellow stem, the black stem, and the common green kinds. The latter has canes from fifteen to sixteen feet in length. The Canadian Yellow Wood is also in the American garden, and the Aralia japonica. The margins of the Dell are planted with Lilies of the Valley, Japanese Primroses, Helleborus, and Ferns. There are two varieties of the Helleborus, the Oriental (dark red), and the Caucasian (whitish green). These are the only flowering plants in the garden which are rabbit-proof."

"Have you any rare trees in the flower garden?"

"Yes, the Chinese Pepper-tree, which annually develops its fruits and seeds, is one of the most conspicuous. It is a native of Nepaul, North India, though, of course, the tree also flourishes in China, the fruit and seeds being used by the Chinese both as a drug and as a condiment. It is known as 'Hova-Tseaon.' In cold and frosty weather the leaves have a curious habit of unfolding the margin until the blades are like small cylinders. This position continues until the return of the mild season, when, very slowly, they resume their normal flat appearance."

"There is nothing formal about any portion of the garden?"

"No, its informal character is a great feature; and herbaceous plants, Alpine plants, hardy bulbs, hardy flowering plants, are used in lieu of the ordinary bedding plants for decorative purposes. This is particularly the case in the Alpine Rockery, where such curious and little-known plants as Linnea borealis, Soldanella alpina, Orobus vernus roseus, Galanthus Elwesii, Leucojum vernum, Saxifraga paradoxica, Saxifraga australis, Ramondia, Galax, Trientalis europæa, Shortia galacifolia, Epimedium alpinus, Epimedium Muschianum, and Epimedium rubrum, are grown."

"You have also some hardy Orchids. I should like the names of the principal varieties."

"One of them is Cypripedium calceolus, a British plant that has become extinct. They include Cypripedium spectabile, Listera ovata, Orchis foliosa, O. latifolia, Epipactus

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palustrus, and Epipactus latifolia. These are not generally cultivated in gardens, but, with a little trouble, damp soil, and patience, they are among the most beautiful of hardy and Alpine plants."

"Then there are your two long beds in the flower garden, devoted, I think you said, to American and Canadian wood plants?"

"Some of the most typical of these are the Partridge Berry, the various sorts of the Trinity Flower, or Wood Lily—the botanical name is Trillium—Wood Anemones, various small Kalmias, Podophyllums, the Sanguinaria or Blood Root (a pretty little plant, belonging to the Poppy tribe), Mertensia virginica, and Asarum. Close to the Rhododendrons are clumps of Crocuses, Galtonias, and Agapanthus. The last is rarely grown as a hardy plant, but although of South African origin, it thrives fairly well."

"What are the most interesting of the plants growing against the south side of the house?"

"Magnolia grandiflora, the Japanese Plum, and the Pomegranate. They have the advantage of being partially sheltered by the architecture. We also grow in the open various varieties of Camellias, Myrtle, and Abelia rupestris, a greenhouse plant, which, however, does very well with us outside."

"You have a very fine collection of British Ferns?"

"They are highly decorative, and give very little trouble. Like the Helleborus, the rabbits let them alone. Amongst the British Ferns are specimens of Hypericums, or St. John's Worts; and you may also care to note that in close proximity is a Roman tomb, placed there by an admirer many years ago."

"And the border devoted entirely to British plants?"

"Yes; that is a little further on. Mrs. Brightwen takes a special interest in that border; and the many rare plants in it include Herb Paris, Pyrola (the Winter Green), the Scotch Primrose, the green Helleborus, the green Iris, and, in a boggy end, Drosera and the Buck Bean."

"In other parts of the garden," continued Mr. Odell, "wild flowers are effectively used for decoration, the large Hog-weed (Heracleum), with Foxgloves in the front, being a notable example."

"The conservatory seems to contain both plants and pets."

"The pets are two zerboas, and British and Russian owls. In addition to the large Palms, which fill the central part, and the Fernery, there are the plants usually in flower at this time of the year, such as Clivias. One very rich form of Clivia was raised by me about seventeen years ago. There are also in the conservatory Cinerarias, Narcissi, and a few Orchids. In the summer the pot Vines are taken down, so that Grapes may hang from the roof."

"How do you turn the pieces of ornamental water on the north side of the house to account for horticultural purposes?"

"The margin is utilised for the growth of aquatic plants, and the various beautiful Water Lilies that are known as Marliacs. A few of the best Aquatics are the flowering Rush, the Water Soldiers, the sweet-scented Acorus calamus, the Water Forget-me-not, the Meadowsweet, the various species of Arrowhead, the Greater Burweed, and Lysmachia clethroides (a Canadian cousin of our little Creeping Jenny, being, in contrast with its relative, a very stately plant)."

"What are the principal varieties of plants grown in the two long herbaceous borders which intersect the kitchen garden?"

"Pæonies, Irises, Monkswood, Godetias, Pansies, Ranunculus, Pyrethrums, Tradescantias, Gypsophilas, Campanulas, Lychnis, Montbretias, Scabiosas, and many other flowers useful for cutting. These borders are, in fact, grown chiefly to supply large quantities of cut flowers, which are despatched by Mrs. Brightwen twice a week throughout the summer months to the London hospitals. A quaint feature in the kitchen garden last summer was a long pergola of Gourds of every known variety, from the Long Bottle Gourd, five feet long, to the tiny Gourd, which is the size of an ordinary Gooseberry."

"How long is the garden path?"

"A hundred and eighty feet. It is arched over with wooden poles, and there is a clear space overhead of seven feet. The pergola was not only ornamental but useful, as interspersed with the curious Gourds were some edible varieties. The latter acted during the early stages of growth as nurse plants to the former."

"When did you plant the Gourds out?"

"The first week in June. They were previously hardened off in cold frames. By the middle of July, last year, the pergola was formed, and large quantities of Gourds were set. The Long Bottle variety came to perfection quite as well in the open as in the stove, one of them measuring five feet three inches."

"What were the other species?"

"Chiefly those belonging to Cucurbita Pepo, such as the Orange, Turk's-cap, Golden Pear, Warted and bi-colour Gourds. We used a few Squash Gourds, but they had to be kept low down in the pergola, because their excessive weight twists and breaks the bine. Of the species used, C. ficcifolia was the most robust and rapid grower."

"Before we leave the subject, you might please,

Amorphophallus Rivieri.

tell me the conditions to success in forming a Gourd pergola?"

"Plenty of water is a necessity, and also the occasional application of weak liquid manure. The other essentials are careful tying, and thinning the shoots."

"Do you grow all your vegetables in the kitchen garden?"

"No; it is used principally for early vegetables, the main crops being grown in the fields. This enables us to take up a considerable proportion with breadths of Sweet Peas, Stocks, Asters (both annual and perennial), Roses, and Carnations, which are grown in quantities. The favourite yellow Carnation is Miss Audrey Campbell, and the pink favourite is Raby Castle. On the walls, which enclose the kitchen garden on three sides, are the usual fruit trees, and the garden also contains a large collection of dwarf and espalier trees. The Mistletoe grows in some of the [illegible]."

"What are the features of the glass-houses?"

"We have the usual Vineries and Peach houses; but, undoubtedly, the plants are the main feature. One range is completely filled with Orchids."

"As a member of both the Orchid and the Scientific Committees of the Royal Horticultural Society, you are, of course, greatly interested in Orchids?"

"Yes. We go in for a varied assortment. There are large batches of Cypripediums, and a fair number of Calanthes, Dendrobiums, Cattleyas and Disas. The flower of the Disa is a brilliant carmine. It is a native of South Africa, and is called 'The Pride of Table Mountain,' being specially protected there. Many botanical and little-known Orchids are included in the collection."

"Which are the more notable of the cool-growing plants, and South African bulbs, in the large greenhouse?"

"Among the best-known of the South African bulbs are the Nerines, the Crinums of various species, the Clivias, and the Vallottas, bearing brilliant scarlet flowers in the late autumn. The plants include Ceropegia debilis, which came from Zamba, in Eastern Africa. In habit and growth it is unlike the more widely-known species. The stems and leaves are succulent, and the habit is somewhat pendulous, the plant having all the appearance of growing in the niches of rocks, hanging down slender festoons of its graceful growth."

"The names of a few others would be acceptable."

"There are the various species of the Eucalyptus; a large batch of Schizanthus, a most useful plant for pot culture, easily grown by amateurs, and Magnolia fuscata, with small dark flowers, and a scent like a Banana. On the roof of the house are various climbers, such as Clematis Swainsonia and Hidalgoa, a plant looking like a climbing Dahlia, but of the most vivid orange colour."

"And the stove houses?"

"The ornamental plants include large specimens of hybrid Anthuriums, Palms, and foliage plants, such as Crotons, Dracænas, Pandanus, and a huge mass of the Papyrus. Growing in tubs are plants of Sacred Lotus, and the Blue Nile Lily; and on the roof are many curious climbers, one of the most remarkable being Aristolochia giga, a plant having an enormous flower nearly four feet long."

"What is the colour of the flower?"

"Dark purple. The central cavity of the flower is much darker, and it emits a carrion-like perfume, which is highly attractive to the flies, who fertilise the flower. The numerous Orchids suspended from the roof grow under the shade of Gourds, which are trained accordingly. Among the most curious occupants of the house is Amorphophallus Rivieri, a quaint Arum-like plant, with a stem three feet long, and a dark purple flower. When the flower dies down, it is succeeded by a single leaf of very huge dimensions. In this house, too, is the Monstera Deliciosa, which has an edible fruit, partaking of the character of a Banana when the outer part is scaled off, with a subacid flavour."

"I should like to have a few particulars about your own career, Mr. Odell?"

"It is summed up in a few words. I have been here between fourteen and fifteen years. Previously, for ten years, I had charge of the gardens at Barrow Point, Pinner; and before that I was under Mr. Stanton, at Park Place, Henley."

"What were the features at Barrow Point?"

"Hardy plants. Mr. William Barber, Q.C., the owner, was keenly interested in gardening, and especially in hardy herbaceous plants, flowering shrubs, and hardy fruit."

"You have exhibited a good deal?"

"Yes, formerly, but we do not grow here for show."

"You are a teacher under the Science and Art Department, I think?"

"Yes, for the past sixteen years I have been lecturer on Botany at the Watford School of Science and Art, and have given several courses of lectures on Agriculture, under the Technical Committee of the Herts County Council."

"Have you done much writing?"

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"I have contributed various articles to magazines, and in 1879 I published "Notes on Natural——." But my special hobby, so far as Botany is concerned, is fungoid diseases of plants, and it is a source of special gratification to me that, in 1879, I was awarded a scholarship at the Royal College of Science, and three years ago was given a seat on the Scientific Committee of the Royal Horticultural Society."

In conclusion, Mr. Odell mentioned that an interesting feature at the Grove in estate management is the disposal of sewage. Recently the whole sewage and drainage system have been reconstructed, and a bacterial installation has been effected under the superintendence of Mr. J. A. Webb, C.E.

"What is the *modus operandi?*" I inquired.

"It is very simple. The whole of the crude sewage is conveyed first to a large septic tank, which is hermetically sealed. In this tank the solid matter in sewage is dissolved and destroyed by micro-organism, known as anærobic bacteria, *i.e.*, bacteria working without oxygen; a fractional part falls to the bottom of the tank as inorganic dust, whilst the effluent passes out on to two beds of clinkers. Each bed is about fifteen feet by ten. The first bed is composed of rough clinker, on which colonies of bacteria grow, and further purify the effluent. When the first tank is full, and has remained some time, it empties by automatic action into the second tank, which is filled with very fine material. Here, again, the bacteria are present, and complete the work of purification. The bacteria in both these tanks, or beds, are aerobic, thus differing from those in the septic tank by living only in the presence of oxygen. When the second tank is full, it is, like the first, discharged by an automatic valve, and the effluent then flows over the land, or, by a simple arrangement, is turned into a main drain, and so discharges at a lower level. The effluent so discharged is found at the Grove to be clear and inodorous, so that the system is considered an unqualified success, and is one suitable for estates, either large or small, where it is impossible to connect with the main drainage of the district or parish."

ALFRED WILCOX.

## LETTERS FROM A LADY GARDENER.

### 37.—NEW FRUITS.

DEAR KATE,—I have a collection of the new rubi—not *rubies*, but *rubusses*, if you like—relations of the Raspberry (Rubus idœus), some of which produce delicious fruits, which everyone should enjoy, for they are grown on the same lines as the Raspberry.

Rubus Phœnicolasius, the Japanese Wineberry (illustrated in GARDEN LIFE, August 10, 1901), is one of these, bearing its berries in August, just as the best of the Raspberries are over. They are Cornelian in tint, and clear, like sherry wine, with a sub-acid, refreshing flavour, which is very much liked by the birds as well as the human inhabitants of my garden; in fact, we find it necessary in hot, dry seasons to net the bushes of Wineberries, as the blackbirds pick them, otherwise, too much. The plant itself is handsome, with deep crimson stems, and silver reverses to its leaves, so that it might be grown even for its beauty. It is perfectly hardy, throwing up great shoots from its base yearly, about ten feet long, or more; and these are carefully preserved, although the older stems, which have borne fruit, are cut down close to the ground in October. The new growths are then bent down so that their points reach the soil, into which these are strongly pegged, for each point will take root and so form a new plant by the spring, when they are cut off from the parent stem, and the long shoots are tied over in arches; and every shoot which appears along them produces a cluster of berries. Last season I counted the berries on one of these; there were 72, so you can fancy what a crop of fruit this plant bears. But it needs to be heavily mulched each spring, in March or April, to do its best; we have cow-manure laid down (as the soil is gravelly), after loosening and drawing back the soil for the breadth of three feet round its stems, taking care, in doing so, that we do not interfere with the network of surface roots on which all the Rubi depend for sustenance, extending a long way around the plant, just below the surface. A little fresh soil is sifted over the manure (to make all tidy), and the rich food swells the crop, at the same time enabling the plant to throw up its fine new growths in July and August. This is one of the secrets of good cultivation of all this family; another is that a spade must never be allowed to come near the network of roots, for suckers innumerable ensue in the case of Raspberries, and some others), and no good fruit can be expected if the roots are cut. But the soil should be kept open with a Dutch hoe, and all weeds pulled up at once. The young plants which grow from the points of the shoots should not be transplanted until the the following October; seed, too, can be sown

AMERICAN BLACKBERRIES.

in a mild warmth in spring, if a quantity of plants are needed.

The Loganberry (which is not a species like R. phœnicolasius, but a hybrid) is half an American Blackberry, and the other parent was a Raspberry. It is a splendid fruit, with a rich, luscious flavour, differing from any other, and is equally prolific with its parents, being of robust growth, with stems as thick as a finger, sometimes twelve or fourteen feet long. It is cultivated just like the Japanese Wineberry, except the propagation, which is done by putting in cuttings, nine inches long, of the new wood, in October; or by pegging down the final yard or so of some of the long shoots, and covering the stems of these with rich soil, when a young plant will spring up at the axil of each leaf. The fruit ripens in July, and continues in season, if well mulched, for six weeks or more; in dry seasons both this and the Wineberry should be copiously watered through a water-spear, occasionally, throughout their season; liquid manure, too, is good for them.

The Japanese Mayberry is also a hybrid between Rubus palmatus and the Cuthbert Raspberry. My plant has produced fine blossoms this year, but these open so early (*i.e.*, in March and April that the cold winds at this time prevent them from setting. We have, therefore, placed two frame lights together at the top, over the plant, to protect it, but whether this will have the desired effect I can scarcely yet say; if it does not answer, I shall put one of the three suckers which the plant is just producing into a cool Vinery border in the autumn. We have fertilised the flowers (which are white and pretty), as this is necesary so early in the year.

The Iceberg Blackberry, another hybrid, was raised by Mr. Burbank, and is a white Blackberry, which produces semi-transparent berries, said to be very delicious; but my plant has not yet finished, so I can't tell you what they are like from experience.

The Strawberry-Raspberry, which was said to be a cross between these two fruits, is rather a disappointing plant. Its flowers are pretty, and so is the fruit, which looks rather like a Strawberry, but tastes not at all like one, being woolly and insipid. It is not a hybrid, but a Japanese species of Rubus, quite dwarf in growth. It spreads itself over the border, and the foliage is ornamental, as well as the flowers and fruit, so that it is best grown as a decorative plant.

Then there are the American Blackberries, in variety, the Rathbun Blackberry being a new and desirable kind, as it has very large fruit, without the hard core which spoils some of them. It is quite hardy, and grows erect, more like a Raspberry, and the fruit is of fine flavour. A fine black Raspberry is called Cumberland Blackcap, although it comes from America; it produces a large crop of fine fruit, ripening it at about the same time as the other Raspberries. The only one of my collection which I have lost (for the poor plant was dug up in mistake for a common Raspberry, and, alas! thrown away) is the Japanese Honey-berry, and this I mean to get again, for it is said to be a most desirable plant, ripening its glossy and sparkling fruit, of a reddish yellow colour, in the middle of the summer, and continuing to produce fruits till the autumn. It throws up canes fifteen feet long, like the Loganberry, and its foliage is like that of a Rose, but with more substance, and is covered underneath with purple thorns. The stout canes, too, are thorny, and purple, so that it is a decorative plant as well. The flavour is said to be "good, but undefinable"; what that means I must leave you to imagine; I mean to find out for myself before many years are past.

I find that all these new fruits are very interesting; and I think my friends are of the same opinion, as my garden is a decidedly popular place, especially with the children, in summer. They (the fruits) are all so easily grown that it is a pity that they are yet so little known; we have not, by any means, too much good fruit yet in the British Isles, and each one of us might easily supply our own families with dessert in summer, if only we would "wake up" and take a little trouble to get it.

I forgot to tell you that the Mayberry must not be cut down after fruiting, as it grows more like a Gooseberry, in so far that it produces its fruit yearly on the same stems. It throws up tall, strong suckers, at the distance of eighteen inches from the parent plant, and these can be transplanted (taking care not to injure their roots) in the autumn, choosing the most sheltered spot, or one against a south wall, where it can be covered with a frame glass during the early spring. They should all be carefully planted, in well-dug, rich soil, spreading out their roots horizontally below the surface, and should be mulched yearly in spring, and watered when necessary.

Your friend,

I.L.R.

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THE climate of South Australia has been found to be extremely favourable to the growth of the Olive, the cultivation of which is consequently increasing rapidly. Up to last year nearly 67,000 trees had been planted, and the number is increasing annually.

attempts, but for every one there was a very simple reason. There was no lime in the soil, and Peaches must have lime. But it can be easily supplied in the form of old mortar. An excellent compost for the purpose consists of four parts of turfy loam, one part of old mortar, a sprinkling of sand, and a little soot. It should be placed over plenty of drainage, and rammed down firmly. In loose soil the roots ramble away and grow large and thick; in firm soil they form a dense mass of fibres, and thus tend to

Mr. A. W. Oliver.

induce fruitfulness. The pots should be from twelve to eighteen inches in diameter, or boxes may be used if more convenient. When the fruit is swelling, it is a good plan to put a strip of turf on end round the edge of each pot, and then to fill up with manure the additional space thus formed. The manure not only feeds the roots, but also protects those lying near the surface from the drying influence of the sun's rays. It is astonishing what crops some of the Peaches in pots will bear.

September 23rd.—It is a singular fact that the Tomato, like its relative, the Potato, deteriorates under persistent cultivation. The profitable life of any one variety is said not to exceed ten years. This is why, after a time, the names with which we were once so familiar—the names of prizewinners which everyone grew, or wanted to grow, if he cared for specially fine fruit—disappear after a time from seedsmen's catalogues, new ones taking their place. The rapid advance in popularity of the Tomato is most remarkable. In a gardening book published as lately as the year 1875, I find this reference to it: "Love-Apple, or Tomatoes, red, yellow." So it would appear to have been considered then of so little importance that the varieties were not even named, being classed merely according to their colour. Yet at the present time in the United States alone, 300,000 acres are devoted to its cultivation, and the produce amounts to five and a-half million cases.

September 24th.—Why does one prefer mixed borders to beds? It is often useful to analyse one's feelings. The answer which springs to the tongue—Because they are more natural—is obviously no answer at all, for it merely carries us a very short distance farther back. The charm of the mixed border is its variety. It is always springing little surprises upon us. At every step we see some new beauty in form, colour, or arrangement. So the eye never wearies; it is perpetually kept on the alert.

H. C. Davidson.

# Famous Gardeners at Home.

No. 156.—Mr. A. W. OLIVER, at THE GARDENS, LEXDEN PARK, COLCHESTER.

As may be imagined, there are many features of interest in the gardens at Lexden Park, the pleasant country seat of the Right. Hon. Sir Mountstuart Elphinstone Grant Duff, one of the most distinguisned of living Englishmen. Sir Mountstuart, during his career, has visited many lands, and has had, therefore, many opportunities of indulging in botanising, which he includes among his recreations. Almost the first plants which attracted my notice on the occasion of my visit to Lexden, early in August, on entering the winter garden, were several Oleanders, which Mr. Oliver, the head gardener, and one of the most successful of local exhibitors, informed me came from Palestine.

"About twenty years ago," he said, "we bought four little pieces of the plant, and it has done very well. The flower, as you see, is pink, and there is a slight perfume. It remains in flower some four or five weeks."

"How long has the Blue Gum been in the house?"

"A couple of years only, but it was a large plant when it was put in. It has both a broad and a narrow leaf."

"Are Gloxinias a considerable feature?"

"We have usually grown ten to eleven dozen. Most of them are Carter's Invincible. We go in for the crest flower, good colour, and size. Now and then there is a failure, but, as a rule, they succeed. I make a point of not growing Gloxinias more than two years. The flower gets smaller each year, and then, I think, it loses its attractiveness. There are thirteen pots of Saintpaulia ionantha, but these flower more in the spring than now. I propagate from leaves."

"I notice that you have the purple Achimenes?"

"Yes, we have three or four dozen pots, with eight or ten plants in a pot. It is a flower that lasts well. The Cannas are seedlings, golden and scarlet. They have been flowering about six weeks. I do not find them difficult to grow. They are dried off in winter; then I get them under the stage, and bring them out in March or April, when we want them to flower."

"The two Junipers," continued Mr. Oliver, "came from Palestine. They have been here ten years. You would hardly think so, because they are so very slow-growing."

"In addition to your Bougainvilleas, Fuchsias, Hydrangeas, and a rough rockery, I notice in the winter garden a very handsome pink spike."

"That is Watsoni aurea. I got it from Mr. Wallace, of Colchester. It is really herbaceous. Next season I shall start it in a pot and put it outside. In this house we shall, later, bring on the Chrysanthemums under the Palms."

Then we went out on to the front lawn, and the beauty of this part of the pleasure grounds was quite a surprise. It is greatly enhanced by a charming ornamental lake, with an island in the centre. We turned aside, however, for a time, in consequence of a shower, and inspected the greenhouses, which are contiguous to the pleasure grounds. Here was a general collection of decorative plants, including Orchids, of the Cattleyas (in many varieties), Cypripediums, and Dendrobium species, and a few very promising specimens of Epidendrums, which came from Venezuela. The contents of the greenhouses also comprised Crotons, Dracænas, Pandanus, and Stephanotis on the roof.

"You go in for Begonias, too?" I observed.

"Yes, I get a good strain and save my own seed. I have always been fond of all varieties of Begonia. The Streptocarpus, which is in six or seven colours, has been in flower all through the summer. We have a small batch of Poinsettias coming on."

"How long have you had the Coleus thyrsoideus?"

"This is the first year I have grown it. I intend to try it on the single stem."

Returning to the terrace, with nearly a score of vases, in which are Ivy-leaf Geraniums, Fuchsias, and Lobelias, and passing a border of herbaceous plants under the wall, we proceeded to inspect the beds in the Italian garden.

"The principle is to have the eight beds in different size," remarked Mr. Oliver. "There are two large ones with Ivy-leaf Geraniums for groundwork, Eucalyptus in the centre, and Lobelia cardinalis; two of the beds are mixed Geraniums and Coleus; two Begonias of different varieties; and the remaining two Abutilons in two varieties, which do very well in the summer."

Lexden Park, Colchester.

"There are thirty-two. The Irish Yew stock with Golden Yews worked on the top is, I believe, very rare. Some time ago the lightning struck one of our Yews, and took the top off. I wrote to several nurseries, but could not get another top of the right size."

"Do you clip them more than once a year?"

"No, once is sufficient. But I tie them in after wind, and feed them occasionally with a liberal quantity of manure water."

Noting more vases close to the double tennis court, and that the lake is ornamented by double-white and double-pink Marliac Lilies, while in the centre are Rhododendrons, which, in the season, must present a brilliant spectacle, we came to a pretty little rockery adjoining a rustic bridge over the water.

"Montbretias seem to flourish on the rockery," I said.

"They always do well. Other plants are Dianthus, Rock Roses, Pentstemons, Campanulas, and, earlier in the season, Violas and Aquilegias; also various Thymes, and a few clumps of Epimedium (Barrenwort)."

"What classes do you favour most for the Rose garden?"

"Hybrid Tea and Perpetuals. Among the best varieties are white Maman Cochet, the original Maman Cochet, Corunna, Her Majesty, Marie van Houtte, Mrs. John Laing, J. W. Grant, La France, Viscountess Folkestone, Baroness Rothschild, Ulrich Brunner, and Fisher Holmes. All the beds have been re-made recently, the present arrangement being a round bed in the centre, two side beds, and an archway leading into the Rosery."

"Apart from the Rosery, you seem to have a fine collection of Roses."

"Yes, we have had a grand lot of flower on the Rose trees in the beds on the side of the lake. They are standards and dwarfs, La France being used for the latter. The little Polyanthus Rose is also used, and we fill up the beds with Montbretias, or Pansies, according to the season."

"You have more Yews here?"

"They are purely Irish Yews, and form a walk with Tritomas on each side."

"The contrast in colour is very effective. What are the features of your herbaceous border at this point?"

"In September it will be filled with Michaelmas Daisies, mauve, white, and purple, and a quantity of Harpaliums. The yellow of the latter supplies a contrast."

"You appear to have one bed consisting entirely of Crimson Rambler Roses?"

"Yes, there are six trees, five round the bed and one in the centre. The bed was planted two years ago, and it was a remarkable feature when the Roses were in flower. The bloom was alike all round. There are two more beds of Roses, standard and bush, William Allen Richardson being the standard. These beds are intended more for outside effect than for cutting purposes. In another herbaceous border we have Phlox, Gypsophila, and Asters. Earlier, we had a show of Delphiniums."

"You do not have Roses in the bed at the far end of the lake?"

"We used to do so, but we had to give them up, because of the rabbits coming in from the park. Now, the bed is devoted to Campanula pyramidalis, the Chimney and the alba varieties."

"There is yet another bed which seems to chiefly consist of Hollyhocks?"

"Hollyhocks and Gourds. For the first time we have managed to keep the flowers of the Hollyhocks free from disease. They are popular flowers, but often get so smitten by rust that many persons have given up growing them."

"How did you contrive to evade the pest this year?"

"By the free employment of Condy's fluid. The rust is coming on again now, but, though I could not save the foliage, we have had a quantity of flowers. Behind this bed we have a bank of Azaleas, which separates the pleasure grounds from the park."

"What is the extent of the park?"

"About eighty acres. The pleasure grounds are between three and four acres, and the lake is about an acre and a quarter. There are nearly two miles of walks in the park, and the Oaks, Limes, Cedars, and Copper Beech are fine."

Both the gardener's house and the kitchen garden at Lexden are on the opposite side of the road to the park. Here, too, are the Peach houses.

"They are cool houses," Mr. Oliver pointed out, as we entered. "In one we grow Royal George, Princess of Wales, and Barrington Peaches. The last is carrying a good crop of fruit. The old Brown Turkey Fig tree in the corner does very well."

"And the Tomatoes?"

"The varieties are Lord Roberts and Reading Plentiful, a fine, large Tomato and a good cropper. The Laxton Tomato is also grown in the open with very satisfactory results. We had Peas in this house before Tomatoes, and picked some in the middle of April. The Peaches in the second house are Hale's Early, Dr. Hogg, and Sea Eagle."

"I see that you go in considerably for Chrysanthemums?"

"We have about two hundred Japanese and Incurved. There are about sixty varieties, and we keep buying a few new ones every year for exhibition. Half a dozen of the best would, in my judgment, include W. R. Church, Mrs. Barkley, Madame Herrewege, Exmouth Crimson, Mons. Chenon de Leche, and Miss Alice Byron."

"Do you grow many varieties of Cucumber?"

"Only Carter's Telegraph and Improved Telegraph. Of Melons, we grow Royal Sovereign and Laxton's Masterpiece; also a seedling of my own. The flesh is green, and the flavour is very good. I grew it from some seed which came from South Africa, crossed with Earl's Favourite, two years ago."

"How large is the kitchen garden?"

"About an acre and a quarter. Pears are grown right and left. The varieties include Beurré Bachelier, Marie Louise, Glou Morceau, Duchesse d'Angouleme, Pitmaston Duchess, Williams's Bon Chrétien, and Louise Bonne of Jersey. Owing, I think, to the fact that we are sheltered, we got a very fair crop even last year. Elruge and Pineapple Nectarines grow on the walls."

"And Apples along the other side?"

"Yes, including several venerable trees which crop every year. The best of the varieties are Warner's King, Ribston Pippin, Adam's Pearmain, Lady Suffield, King of the Pippins, Winter Pearmain, and Braddick's Nonpareil, a very old Apple."

"The Plums seem to be thriving?"

"The only failure in fruit, so far, has been in Black Currants. The varieties of Plums are Victoria, Greengage, Coe's Golden Drop, Monarch, and Jefferson. The crop of Morello Cherries was very good. Of Raspberries, we grow Superlative only, and, of Strawberries, Royal Sovereign, Latest of All, and St. Joseph."

"Your border of annuals down the centre is pretty."

"It adds to the brightness of the kitchen garden. We had a large clump of Sweet Peas of some fifteen varieties, including several of the newest."

"Have you anything special in vegetables?"

"No. We have only the general run. Our Peas are Ne Plus Ultra and Veitch's Latest of All, and there are fair-sized beds of Onions, Carrots, and Beet. By the way, we do grow one vegetable which is not common. I mean Salsafy. We have had it for several years."

"How many plants are there in the bed?"

"Between three and four hundred. It is a smaller vegetable than a Parsnip, and white and milky, but it bears some resemblance. We like it because it makes a change dish."

"When do you sow Salsafy?"

"In April or May. The treatment is similar to that of Carrots. We get a crop in December, before Seakale."

"Does the soil suit Potatoes?"

"Both Potatoes and Celery. It is light, sandy soil. We have a few Northern Star Potatoes, and other varieties are King's Victoria, Carter's Long Keeper, and Carter's Excelsior. Before we leave the kitchen garden, you may care to notice the Tropæolum speciosum on the north wall."

"It is a thriving example."

"Yes, the north wall suits it, owing to the absence of sun. It keeps in flower for a couple of months. I should also like to draw your attention to a very old specimen of Wistaria sinensis, and several dwarf Japanese trees."

"Where did you start gardening Mr. Oliver?"

"I was two years at Elm House, Leatherhead, and then at Camilla Lacey, near Dorking. I was there five years, and went through all the branches. Then, for eighteen months, I was at Alburgh Hall, near Ilford. My next post was that of foreman at Fern Lodge, Bracknell, under Mr. Uphill, and at the end of three years I went as head gardener at Aspenden Hall, Buntingford. The owner, Sir Henry Lushington, Bart., died at the end of twelve months, and the place was to let. Six years since, I came to Lexden."

"When did you begin showing?"

"Three years ago. I have been fairly successful, particularly in Chrysanthemums. For instance, I took five firsts in 1902, and one first, four seconds, and a third in 1903. I have rather a preference for Chrysanthemums, especially the Japanese varieties. The Incurved, I think, when shown on boards as exhibited, are often too stiff, owing to lack of foliage. I have also shown groups of plants, cut flowers, Apples and Pears at the Colchester and other shows. In addition to keeping up the supply here, we send plants, fruit and vegetables to Sir Mountstuart's town house during the London season."

Alfred Wilcox.

## The Spanish Iris.

WHEN planting bulbs this autumn, do not forget the claims of the somewhat neglected Spanish Iris. Beautiful as are the Hyacinths, Tulips, and Narcissi, I do not think that it can be denied that, from an artistic point of view, the Spanish Iris is infinitely superior to them all. Combine with their graceful appearance the rich yellow, orange, and bronze tints with many shades of purple and blue, and a delicate and exquisite scent, and we have a flower which fully deserves to be the most popular of all the smaller bulbous-rooted occupants of the garden. In addition to the above good points, the flowers last well in water, the bulbs are perfectly hardy, and require no attention after planting, while they may be obtained of reliable quality from a shilling to eighteenpence per hundred. What more can we ask for?

But the reader may say, "Have these paragons no bad points?" Yes, they have one. After the flower has faded the foliage follows suit and forms a rather unsightly object in the border, but this difficulty is easily disposed of in my own garden by planting round the Iris some quick-growing annual. As the foliage fades the annuals rise up and cover the withered "grass."

The bulbs—to be correct, they are not bulbs but corms—should be planted at once, about three inches deep, preferably in a sandy loam; rich soil is not required. Planted in groups in the front of a border, which is backed by dark shrubbery, the effect is very striking.

A good selection of distinct varieties is as follows:—Beauty (pale blue and citron), Diana (bright yellow), Gold Cup (bronze and yellow), Golden King (deep orange), Purple Crown (bright blue), Snowball (pure white, very large).

Brensis.

For the illustration of "A Vase of Freesias," which appeared in the issue of this paper for September 3rd, we are indebted to Messrs. Webb and Sons, of Wordsley, Stourbridge.

# OBITUARY.

WE have to record the death on the 8th inst. of MR. ANTHONY OLIVER, late gardener to the Earl of Ravensworth, at Eslington Park, Northumberland. He had reached the ripe old age of eighty, and until within the last year or so had taken an active part in superintending the place where he had been head gardener for the long period of fifty-seven years. He was the oldest gardener in the district, and was widely nown and respected. His practical acquaintance with the best kinds of fruits and vegetables enabled him to be of much service to cottagers and others; so much so, that his name became a sort of household word amongst them. In the course of the long period during which he served the Ravensworth family, gardening became, as it were, revolutionised; and it was interesting to hear the old man describe the difficulties that had to be overcome before the first flower shows in the north of England could be started. At these, when once set agoing, he was a regular and successful competitor.

Agent who died 31 August 1884 at 55 Tredegar-road was proved at the **Principal Registry** by Cornelia Wilhelmina Johana Olifiers of 55 Tredegar-road Widow the Relict and Johannes Sigusmund Olifiers of 47 Crispin-street Agent the Son two of the Executors.

**The Honourable OLIPHANT Charlotte.**

Personal Estate £18,882 0s. 1d. in the United Kingdom.

1 February. The Will with three Codicils of the Honourable Charlotte Oliphant formerly of 60 Addison-road Kensington in the County of Middlesex afterwards of 13 Melville-street Edinburgh in North Britain but late of 27 York-road Hove Brighton in the County of **Sussex** Widow who died 5 November 1883 at Brighton domiciled in England was proved at the **Principal Registry** by the Right Honourable Montolieu Fox Oliphant Murray Baron Elibank of Swinton Bank in the County of Peebles in North Britain the Nephew David Scot Dickson of 1 Thistle-court Edinburgh Writer to the Signet the Reverend Alexander William Oliphant Murray of Hartshorne Burton-upon-Trent in the County of Stafford Clerk the Nephew and the Reverend Alexander Murray of the Manse Eddleston in the County of Peebles Minister of the Established Church of Scotland the Executors. Probate being granted certain Limitations.

**OLIPHANT Louisa Ann.**

Personal Estate £278 11s. 3d.
Resworn October 1884 £349 18s. 11d.

29 April. The Will of Louisa Ann Oliphant late of 14 Holland-road Kensington in the County of **Middlesex** Spinster who died 19 March 1884 at 14 Holland-road was proved at the **Principal Registry** by George Auldjo Jamieson of 24 St. Andrew-square Edinburgh in North Britain Esquire one of the Executors.

**OLIVE James William.**

Personal Estate under £100.

4 December. Administration of the Personal Estate of James William Olive late of 21 King-street in the Town and County of the Town of **Southampton** Master Carman who died 17 September 1884 at 21 King-street was granted at **Winchester** to Sophia Olive of 21 King-street Widow the Relict.

**OLIVE Jeremiah.**

Personal Estate £16 17s. 11d.

23 May. Administration of the Personal Estate of Jeremiah Olive late of Bridge-street in the County of the Borough of **Carmarthen** Widower who died 11 February 1880 at Bridge-street was granted at **Carmarthen** to John Samuel Olive of the "Boars Head" Hotel Carmarthen Victualler the Son and one of the Next of Kin.

**OLIVER Ann.**

Personal Estate £4.

28 June. The Will of Ann Oliver late of Cross Banks in the Parish of Rock in the County of **Worcester** Widow who died 20 January 1884 at Cross Banks was proved at the **Principal Registry** by Henry Oliver of Cross Banks Basket Maker the Son and William Winwood of the Bliss Gate in the Borough of Bewdley in the said County Carpenter the Executors.

**OLIVER Anthony.**

Personal Estate £85 4s. 9d.

23 June. Administration of the Personal Estate of Anthony Oliver late of Eslington in the Township of Whittingham in the County of **Northumberland** Gardener who died 8 May 1882 at Eslington was granted at **Newcastle-upon-Tyne** to Joseph Oliver of Eslington Gardener the Son and one of the Next of Kin.

they now exhibit must have been caused by differences in their environment—food, and so forth. Is it likely that the evolutionary process has ceased at either end of the aphis scale? Is it likely that such plastic organisms are no longer alterable? It seems far more probable that, in the course of generations—and there are a vast number of them in a single year—as the result of differences of food, they are still capable of those modifications of form which are apt to be regarded as specific. This is certainly true of the nitrifying bacteria which are

MR. ONSLOW.

present in the soil. Those, for example, which naturally infest the Pea, may in time be acclimatised on, and come to resemble those which naturally infest, the Bean. And if these bacteria are modified by the food which they eat, it is a fair inference that other organisms may be modified also.

**The Small Ermine Moth.**

July 22nd.—I have never before seen anything like as many nests of the small ermine moth as this year. Rather over a month ago they were thickly strewn over my Hawthorn hedge, like spiders' webs in autumn. Some hundreds of them were cut off and destroyed, but several escaped notice, and the caterpillars have since dispersed and done a good deal of damage. Some time ago I saw, in reference to spraying, the statement that it is easy to form an exaggerated idea of the effect of the liquid used, as every nest contains a large number of infertile eggs. This I found to be true. In every case there were far more eggs than caterpillars, and though some of them might have hatched later, the majority would probably not have done so. Whether they were actually infertile, or whether they had been killed by frost or some other agency, I cannot say; but it is fortunate that the proportion of caterpillars is no higher, otherwise our bushes and trees might be completely defoliated. The small ermine moth is sometimes almost as destructive in orchards as the Codlin moth, but for some reason or other it seems to have left my Apples alone.

**Glorious Rhododendrons.**

July 23rd.—The Rhododendrons in the woods around here have been simply glorious. I have never before seen such masses of colour in this country. It has been a fine object-lesson. Why should our shrubberies be so dull as they often are? Rhododendrons may be a little more expensive than Laurels and plants of that class, but between the two there is no comparison. If the situation suits them, they generally flower well, provided that the pods are picked off, and they give very little trouble.

H. C. DAVIDSON.

# The Gardens of Sir Henry St. John Mildmay, Bart.

INTERVIEW WITH MR. R. G ONSLOW, AT DOGMERSFIELD PARK.

IN spite of the fact that when I visited the gardens at Dogmersfield Park, in June, it rained hard most of the time, I was able to take full advantage of the courtesy of Sir Henry St. John Mildmay, the owner of this famous old seat in Hampshire.

Dogmersfield was originally a church manor, and was granted, as far back as the reign of Henry I., to the Bishop of Bath. It ultimately came into the hands of an ancestor of the Mildmay family, in 1686. If only because Catharine of Arragon first saw her future husband, Prince Arthur, and his father, King Henry VII., at Dogmersfield, it would be interesting historically. The park covers nearly two thousand acres, and abounds in picturesque and wooded scenery, which is augmented by lakes of great size. My first impression, obtained as I drove over a rustic bridge, and through a charming avenue of Rhododendrons, was that its beauty is on a par with its vastness, and the further we proceeded, the more the impression was confirmed.

Near the stately mansion, which stands on an eminence and commands splendid views, I was met by Mr. R. G. Onslow, the head gardener, who first called my attention to the Orange court on one side of the house.

"The Oranges," he said, "are put out this month, and make a nice show of flower, but do not fruit. The court itself is backed by shrubs in variety, with beds of Maples, Prunus Pissardi, and Rhododendrons in front."

"You have two pretty beds of Wallflowers."

"Yes. The varieties are Covent Garden, Blood-red, and Golden Queen, edged with Myosotis. For summer, one bed will contain Fuchsias, Zonal Geraniums, and Lobelias, mixed; the other will be filled entirely with Heliotropes Swanley Giant, a great favourite. On the arches on either side are Roses, Honeysuckle, Clematis, and Golden Hops. We only started the last two years ago, but the result is very satisfactory."

**The Formal Bedding.**

Passing an enormous Cedar, close to the aviary, I inquired how the window-boxes of the house are filled at different seasons.

"With shrubs in the winter, and Fuchsias, Geraniums, and Begonias in summer, to match the beds. There are two beds of mixed shrubs, chiefly Euonymus, Golden Privet, and Aucubas, on the south front; and three beds, now occupied with Wallflowers, but which later on will be planted with Fuchsias, Geraniums, and Begonias. The latter are always appreciated, because they give such a wealth of flower."

"Speaking of wealth of flower, what a tremendous lot of blooms are out in two of your Rhododendron beds on the west front!"

"They are chiefly ponticums. The bed with the Cupressus Lawsoniana in the centre, edged with golden Gorse, contains Maples and Deutzias, the gold, silver, and green making a pleasing combination. Here, and in other

DOGMERSFIELD HOUSE.

parts, there are fine specimens of old Cedars, Irish Yews, and Beeches, including many of the Copper variety. All along you will notice large clumps of Rhododendrons."

"Are many of them named?"

"A considerable proportion, but they were chosen because of their colour. Crimson, white, scarlet, and spotted varieties are strongly represented. Some of the clumps are between forty and fifty feet in diameter. There is no peat in the soil. We put in leaf-mould, and a foot below the soil there is stiff clay. We only dig it up, and mix a little stable manure with it. Beyond the bed of Golden Privet and the old croquet lawn is the Pinetum."

"With a collection of Conifers?"

"Yes, and amongst them is a specimen of Abies Nordmanniana, which, I believe, is the finest in England. Its girth is great, and it is ninety-seven feet high. Then, there is a fine old Austrian Pine, and notable specimens of Cupressus Lawsoniana, Araucaria, with Oaks in variety, numerous Elms, Limes, and Horse Chestnuts."

"How large are the pleasure grounds?" I inquired, as we paused at the new croquet ground, to admire the vistas and a bed of Golden Elders, which heightened the effect produced by the Rhododendrons.

"About sixteen acres. We are now approaching the flower garden, as it was remodelled by the late Sir Henry Mildmay. In fact, the gardens, which are, of course, very old, were all remodelled by him, and the present Sir Henry also takes the keenest interest in them. The Myrtles and Cordylines, which are now in the conservatory, are placed in the flower garden on both sides of the alcove."

"You must give me some particulars of your very striking beds here. How do you manage to keep the Golden Privet in such perfect order?"

"We keep them bushy by pinching them four or five times a year. There are four beds of Golden Privet, and they look just as well in winter as in summer. Corresponding to two of them are two beds of Berberis aquifolium, and near these are two beds of Beech. These are kept down by cutting the shoots out."

"How do you fill the raised beds, with the vases?"

"With Hyacinths in the spring. In the summer, the centre is filled with Zonal Geraniums and Hydrangeas; the vases with Cordylines. The two raised beds, to correspond, are treated similarly, except that a few standard Fuchsias are used.

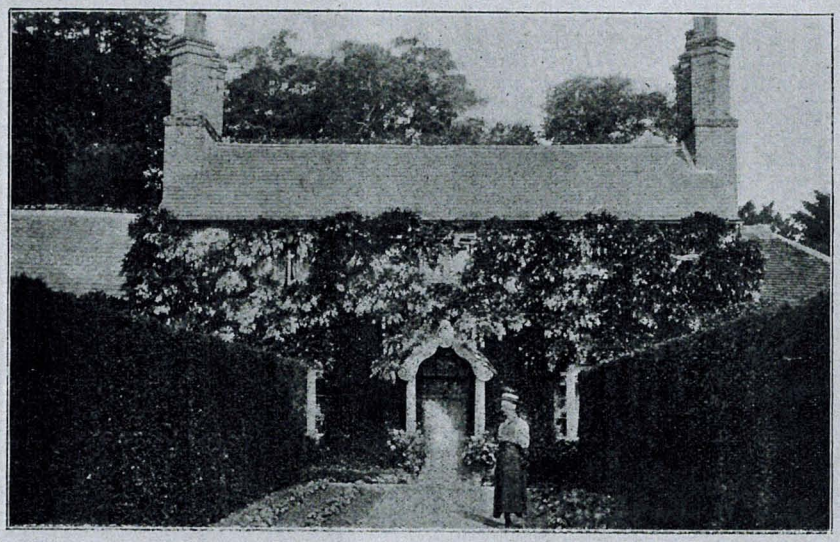
"Other beds," continued Mr. Onslow, "are two of Pyrethrum Golden Feather, two of the single white Arabis, two of Erica carnea, two of Erica (white, single), two of Silver Box, and two of Ivy, with tall-growing Ferns in the centre. In one of the big vases we use Grevilleas or Cordylines, and in the other Geraniums, or Fuchsias and Begonias."

"They present altogether a most delightful appearance, all the way from the massive golden gates and dovecote at one end, to the conservatory at the other. Then, you have also a finely-covered wall."

"The Roses on the wall are chiefly Gloire de Dijon, W. A. Richardson, L'Ideal, Crimson Rambler, Cheshunt Hybrid, and Blairii. Magnolias and Pyrus also do well. The hedge on one side facing the alcove consists exclusively of Yew, and the side hedges are of Holly."

"The hedges look like walls, and seem to be perfect in shape."

"Yews do remarkably well in the soil, which just here is mainly sandy loam. But it takes one man two months in the year to clip and attend to the hedges."



THE GARDENER'S COTTAGE AT DOGMERSFIELD.

### Figs and Melons in a Cool House.

Pursuing our way across the "Long Walk," which connects the kitchen garden with the flower garden, we commenced an inspection of the houses, beginning with a Fig house.

"There is no heat in this house," said Mr. Onslow, "but we never fail to have a crop. Brown Turkey is the best, but Negro Largo and White Ischia fruit well. The Roses at the end have been in flower for quite a month. The varieties are Gloire de Dijon and Niphetos. We give them plenty of stable manure. Cucumbers are grown on one side, and Melons on the other, all without heat. As you see, there is a fine crop of Melons; the varieties include Hero of Lockinge, Sutton's Triumph, and Ringleader. In the little Peach house we get good crops from old trees, the varieties being Hale's Early, Nectarine Peach — a fine cropper — Stirling Castle, Alexander, Princess of Wales, Violette Hative, and Nectarines Early Rivers and Elruge."

### The Best Malmaisons.

"I should like the names of some of the best Malmaison Carnations in the greenhouse."

"Baldwin, Nell Gwynne, King Oscar, Flora, Grace, Mrs. Trelawney, Horace Hutchinson, and Lord Rosebery. We have been cutting blooms for six weeks. The Fuchsias coming into flower are Charming. We use them largely in the mansion; also the Zonal Geraniums and Show Pelargoniums. The two principal of the former are Hermione and Gibbon; of the latter, King of the Pelargoniums and Mrs. Rundle. The Begonias are Worthiana and Gloire de Lorraine. We generally grow the old ones on."

"Do you force your Vines much?"

"No, we just keep the heat on, and bring them on gradually. It will be August before we cut Grapes in the early house. The Vines are all Black Hamburgh. The other house is almost devoted to Muscats, and you see that there are some fair-sized bunches. There is also a tree of Barbarossa, a large black Grape, fine to look at, but deficient in flavour. We have both inside and outside borders. There is no question about the advantage of inside borders, especially in a forcing-house, and for Muscats. Adiantum Ferns are grown in one Vinery, and Asparagus Sprengeri in the other."

### Hemerocallis and Amaryllis.

"I notice that you grow Hemerocallis indoors."

"Yes, but, of course, it is not at all like the hardy Hemerocallis. The treatment is the same as that of Pancratiums, and the white flowers are about a foot and a half high; the foliage is very handsome After they have flowered twice in the year for about a month or six weeks, I keep them in dry soil."

"Amaryllis in pots seems to be a feature in the stove."

"We use a quantity of the blooms for the house. The plants are very old, but the colours are well represented—pink, white, crimson, and pink and white striped. Many of the bulbs have two spikes, and six blooms on a spike. After they have done growing, I do not repot the bulbs; but I keep all the foliage tied up, give the bulbs a rest through the winter, take the top soil off, put them in the tank, and let them soak for forty-eight hours. Then I top-dress them with good loam and manure. That is all they have. I only pot them once in four years. We have a few choice Callas, and Clivias are also grown for cutting. The Geraniums, Baden Powell and Ryecroft Surprise, are grown in pots for use in the house."

"What about Chrysanthemums?"

"We grow only the bush varieties. Amongst the best are Source d'Or, Simplicity, Kelway's Queen, Lady Fitzwygram, Mary Anderson, O. J. Quintus, and Rayonante, a very pretty variety, which shows up well by artificial light."

### A Great Collection of Pears.

"Our kitchen garden," said Mr. Onslow, as we left the houses, "is a series of squares, with either hedges of Yews or walls surrounding them. The great feature of the fruit is the Pears, which are grown on pyramids, fan-trained, and on cordons on the walls."

"Which do you find the best on pyramids?"

"Beurre Superfin, Clapp's Favourite, Williams's Bon Chretien, Fondante d'Automne, Marie Louise d'Uccle, Beurre Hardy, and Marie Benoist. Of the fan-trained Pears, I should recommend Marie Louise, Doyenne du Comice, Glou Morceau, Pitmaston Duchess (we have had Pears on one of these trees weighing twenty ounces), Beurre Diel, Seckle, Jargonelle, Catillac, Beurre Clairgeau, the Black Pear of Worcester (a good stewer), and the Trout Pear (a very good dessert Pear, with a magnificent colour)."

"Which are the principal on cordons?"

"The earliest is Dr. Jules Guyot, and it is also very prolific. Other good varieties for cordons are Charles Ernest, Pitmaston Duchess, Beurre Hardy, Beurre Clairgeau, and Directeur Alphand (a very late Pear which we can keep up to June)."

"When do you do your pruning?"

"Always in the summer. I start the latter

end of July or the beginning of August. The advantage of summer pruning is that you get plenty of air and the colour into the fruit."

**How to Treat Apricots.**

"The Pears are looking exceedingly well. What about Apples?"

"They are mostly standards, and a considerable number are grown in the orchard near the farm. As to varieties, some which we appreciate most are Grand Duke Constantine, Langley Pippin, Duchess of Oldenberg, Lady Sudeley, Winter Pearmain, Cox's Orange Pippin, King of Pippins, Bramley's Seedling, Lane's Prince Albert, Gravenstein, Lord Derby, Annie Elizabeth, and Mere de Menage."

"I notice that you have Apricots on the walls?"

"And you will also notice that, unlike the other fruit on the walls, they are not covered up. Apricots do better uncovered. I always summer-prune them, and tie in the shoots. The varieties are Moor Park and Hemskirk."

"You have some splendid crops of Peaches."

"They will have to be very much thinned. They are well protected all the way round, and we get them very early. The varieties include Sea Eagle, Barrington, the Nectarine Peach, Alexander, and Royal George; the Nectarines are Lord Napier and Elruge. The Plums on the [illegible] are Victoria, Kirke's Transparent Gage, Greengage, Early Transparent, Pond's Seedling, and Golden Drop. The dessert Cherries on the wall are chiefly May Duke. Morello Cherries are grown in the Strawberry garden, which we are just entering. This is a new fruit quarter."

**A Strawberry Garden.**

"How many varieties of Strawberries do you grow?"

"Four—Royal Sovereign, Latest of All, Sir Joseph Paxton, and Viscountess. We used to grow twelve, but we find that it is much better to have few varieties. The plants are kept for three years, and we do not let them fruit the first year, but pick the flowers out in order to get early runners. At the top end of this square are Currants, White and Red; the Black Currants are Boskoop Giant (which are not troubled by the mite); Gooseberries are in variety, and the variety of Raspberry is Superlative. I do not think this variety can be beaten. As a matter of fact, we get more fruit than we want, especially of Raspberries and Pears."

"You grow a number of Roses in the kitchen garden?"

"Yes, and Roses and Clematis on arches. The former on one side, the latter on the other. On these arches are also Pyrus japonica, Honeysuckle, Golden Hop, and Cratægus. The varieties in the herbaceous border are planted in clumps, of which the more important are Pæonies, Michaelmas Daisies, Phlox, Anemone japonica, Lobelia cardinalis, Potentillas, Asters, and Iris germanicus."

"When do you sow your Sweet Peas?"

"In spring. I save the seed, mix it up, and get four rows all round the garden for cutting. The latest varieties, including all the Eckfords and King Edward Spencer, are grown in rows. The prevalence of Box and Yews militates against autumn sowing. We are going in this year for the old-fashioned double Dahlias, instead of the Cactus varieties."

"Do you grow many annuals for cutting?"

"A fair number, chiefly Verbenas, Stocks, Dianthus, and Phlox Drummondi. We have nine lights of Violets, and grow Marie Louise and J. J. Astor (double) and Princess of Wales (single)."

"I judge by appearances that vegetables are grown in great quantities."

"The soil suits all kinds, and we get the digging done in the autumn. We begin picking Peas the second week in June, and go on until November, with sometimes a break in the succession. The earliest variety is Sutton's Marrowfat, and other varieties are Duke of Albany, Carter's Quite Content, Stratagem, and Autocrat. Our Asparagus usually lasts until the Peas come in."

"I see it is planted on the flat."

"Yes; it was planted before I came. The two large beds are remarkably productive, and since the third week in April up to now (June 4th), we have cut between four and five thousand heads. Though the weather has been exceptionally cold this year, we began to cut Asparagus a fortnight earlier than usual. As to other vegetables, we have the general routine, and cut some kind of Lettuce for salad all the year round."

"And Potatoes?" I observed, as we strolled between two Yew hedges, with Potatoes in the borders on either side.

"The only variety on the borders is Up-to-Date, but we also grow May Queen, Ringleader, and Eldorado."

"How long have you occupied your pretty cottage, with its fine specimen of Wistaria?"

"I have been here nine years as head gardener. I started under the late Sir Henry Mildmay, and have continued under the present owner. Previous appointments have been two years at the Milford Nurseries, two years with Mr. Claude Hayes, seven years in the gardens of the late Lord Penzance (Eashing Park, Godalming), and two years at Hampton Lodge. As to showing, for two years I did a good deal, and carried off a number of prizes, including first on two occasions for the best collection of eight different kinds of fruit, prizes for large-flowering Chrysanthemums and for single dishes of fruit The competition was very keen. Lately, however, my activities have been confined to judging at the local flower shows."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 365.—LILIUMS, AND TUB-GARDENING.

DEAR KATE,—This is the time of Lilies, and the garden is looking like the edges of an illuminated missal, with the tall Madonna Lilies on every side. I believe these stately flowers are terribly destroyed in some districts by a special disease, a kind of mildew, which is probably caused by the weakening of the bulbs, which are sent in large quantities to be forced for the early decoration of churches. Liliums of all kinds (but especially these, Lilium candidum) hate to be disturbed, and should never have their lower fleshy roots mutilated or cut away. But the importers of these bulbs do not care what becomes of them later on, unfortunately, and so, when once the flowers (already in embryo in the bulb before it is taken up) have opened, the bulb itself sickens and dies, for it has no roots to sustain it. If only we all combined to buy no Lily bulbs which are minus their roots, we might even make the Japanese and other importers listen, and act differently, but at present it is rare to find a Lily bulb for sale which is intact.

**How to Save the Bulbs.**

However, it is possible to save the plants by careful treatment, after flowering, as well as before, and the more delicate Lilies should be sheltered from the cold and wet of our climate during their first winter, at least—although most Lilies are quite hardy in this Devonshire garden when once established and equipped with proper roots. Madonna Lilies are, of course, best obtained from some country district to which the Lily disease has not penetrated, and should be planted directly after they have flowered, not (as in the case of Japanese and other foreign Liliums) in the autumn or winter, for they are never quite dormant, as they produce a whorl of leaves as soon as the flowers fade, and these, as well as the whole of the bulb, should be carefully preserved. Lilies do not like to be planted in contact with fresh animal manure, which is also likely to cause them to become cankered; yet they should have good, rich loam, from the kitchen garden, which has been enriched in the spring, and the position chosen for them must be deeply trenched, because the plants should not be disturbed again for years, only top-dressing them each season (in March) with well-decayed manure, of which they can assimilate plenty when established, if given in this way from the surface.

Many Lilies have surface roots springing in whorls from their stems, which feed greedily on a rich mulch, and for this reason they should be planted rather deeply. The lovely pink and silver Lilies of Japan (L. speciosum) are thus provided, and so are the golden-rayed Lilies (L. auratum, and its varieties), of which we find L. auratum platyphyllum the hardiest as well as the finest, producing year after year in the garden magnificent heads of blossoms, each ten inches across, although they are not protected in any way in the winter here. But our soil is porous and well drained; probably in a heavier material, they would need thorough drainage (*i.e.*, six inches of crocks and cinders) below their bulbs, and the soil in which they are planted, for I am convinced that it is not so much the frost as the continual cold rain of our winter climate which is so bad for foreign bulbs. Another plan of sheltering them (from October to March) is by means of a pane of glass raised above the roots on pots, or by a handglass, which should admit some air. A pile of dry ashes over them is useful, too.

**First-year Cultivation.**

In the case of all Lilies which reach us with mutilated lower roots, we cultivate them for the first year in pots, and they are carefully watered, sheltering them during the winter in a cold frame, their pots being sunk to the rim in ashes. The flowers are cut off directly they fade, but every bit of green leaf is preserved, and the foliage is never allowed to die off suddenly for want of water, as it is most important that it should be allowed to do its work during that season of maturing flowers for next year which occurs in the life of a bulb immediately after blossoming. The deadly system of "drying-off" bulbs quickly (which used to be practised) is now quite exploded, and we know that Nature needs to ripen away the leaves gradually, before the bulb rests, for leaves do the work of lungs to all plants, and should not be suddenly destroyed for want of water. Some Indian Lilies (notably L. sulphureum and L. nilgherrense) will take months to go to rest, and should be supplied with enough moisture to prevent drooping (though it will not be needed so often as in the spring) until the last leaf has ripened away. L. sulphureum is fairly hardy, but blossoms so late in the season that it is best grown in a pot. The splendid nilgherry Lily of Southern India is decidedly delicate, and should not be risked in the open border.

appearance. The other has been very hard used by me for the last two years, in order to reduce it to less unwieldy proportions. Last spring it throve all the better for the treatment; now it has not started properly, several branches having died back to the main stem. I should like to know the reason—possibly the exceptionally cold weather which came in May just after the buds were beginning to move. Homère is a

Mr. Wm. Orr.

pretty Rose in shape, as well as in colour, and it has a further merit in flowering a second time in the autumn. But it has one serious fault; so many of the blossoms, especially the early ones, have green centres. Large as these two trees are, they are dwarfed by a Marie van Houtte in a friend's garden. That certainly is huge, and this year it has been a picture.

July 10th.—I can't say that I am altogether satisfied with such insecticides as I have tried. The active ingredient in most of them is soft soap, either alone or in combination with something else, and while soft soap, if applied strong enough, will undoubtedly kill green-fly, it is also very apt to injure young shoots or tender foliage. If, on the other hand, the solution is weak, it does no damage to the insects unless a powerful spray happens to be directed straight at them, in which case they seem to be killed by the concussion, and not by the fluid. I have found it equally difficult to clear a Nectarine tree of red-spider, in spite of many thorough sprayings. We have had a plague of ants this year—not the harmless black ants, but the stinging red ants. Not content with the garden, they have established colonies in boxes of seeds and in pots of plants, and they attack anyone who attempts to eject them. One of the seed-boxes in which they had driven innumerable galleries from end to end was simply drenched with an insecticide. It did not appear to affect them in the least, for next day they were as numerous as ever.

H. L. Davidson.

*(To be continued.)*

There is a widespread belief that Peach trees will only succeed on sandy, light soil. It is true they need always a dry soil, but this can be secured where the soil is nearly pure clay, if it be thoroughly underdrained. This is better than putting the Peach tree on Plum stocks, as is often advised when the tree is to be planted in clay soil. The Plum, as well as the Peach, abhors wet feet, and both will do best on clay soil, which is always rich in potash, if the clay soil has first been thoroughly underdrained.

## FAMOUS GARDENERS AT HOME.

### No. 40.—Mr. WILLIAM ORR, at the GARDENS, STOW HALL, DOWNHAM.

The gardens at Stow Hall, the pleasant Norfolk seat of Mr. Thomas Leigh Hare, who has represented the south-west division of the county in Parliament since 1892, are a striking refutation of the theory that hilly, or even undulating, land, is essential to beauty and effectiveness. There are neither elevations nor undulations in Stow Hall gardens, and yet, as I remarked to Mr. Orr, who has been in charge of them for upwards of thirty years, they have indisputable charms, which cannot fail to be recognised by all lovers of Nature and natural attractions turned to the best account.

One of the most conspicuous trees, close to the modern and handsome mansion, is a venerable Cedar of mighty girth, and an expression of admiration on my part elicited from Mr. Orr the remark that Cedars are a feature of the Stow estate.

"Eight years ago," he continued, "the high winds rooted up several Cedars, including one of the very best, but, as you see, we have still some good specimens left."

"But," I said, as I paused to admire a magnificent Fern-leaf Beech, feathered to the ground, "there is no tree that I can see to equal this."

"It is generally regarded as very beautiful," rejoined Mr. Orr, "whether on account of its size, its shape, or its colour."

"You have also a fine row of Oriental Planes?"

"Yes, they are doing well. The drawback about Oriental Planes is that a frost causes the leaves to come off."

Here Mr. Orr called my attention to a combination of Purple Beech, Maidenhair-tree (Salisburia), and variegated Maple, which form another of the attractions near the house.

"The Maidenhair," he said, "was completely covered by one of the Cedars which was broken down, but since then it has begun to assert itself."

"Of other trees, which do you consider the best specimens?"

"There is a fine specimen of Golden Yew, and a very nice Liquid-ambar. The Judas trees, of which there are several, are also good of their kind."

"You go in largely for Rhododendrons?"

"Especially for Ponticums in the woods. The soil suits them so well that they grow wild, and come up as thick as Grass. Thousands are taken away every year, because they afford too much cover for the game. The Hybrids in the grounds have suffered severely this year from the rain. The continual drench spoilt the flowers."

Entering the commodious and well-arranged conservatory, I was greeted by the scent of the Orange flower. On one tree there was green fruit and ripe fruit, as well as blossom.

"This house," Mr. Orr pointed out, "was built in its present form twenty-five years ago by Sir Thomas Hare, over a smaller one, which contained Camellias."

"Do you grow Camellias in the open?"

"No, they have always been grown under glass. They do wonderfully well, and are a mass of bloom earlier, in the winter. They are too stiff to use for decorative purposes, and we simply let them take their course. At a time when other flowers are scarce, they are very ornamental in the conservatory. They have very little market value now."

"You do not treat Bougainvillea speciosa as a stove plant?"

"I know it is put down as a stove plant. But my experience is that it does better in a cool house. It flowers luxuriantly in the season."

"You have a pretty climbing plant in flower now?"

"Yes, Solanum grandiflora. It is pretty to look at, but I do not recommend it. The fact is that it grows too quickly, and soon covers and kills everything else."

Then we went outside again, and noticing some remarkably healthy-looking Calceolarias, I enquired when they were bedded-out.

"At the end of March," replied Mr. Orr. "I used to bed them out with other things at the end of May, but I find that they do better bedded out two months earlier. The frosts have not done them any harm. Last year we had a succession of flowers through the whole season."

The Gardener's Cottage at Stow Hall.

Passing through several houses before we went into the kitchen garden, I observed some Malmaison Carnations, H. J. Jones being conspicuous, which Mr. Orr said had only been introduced recently. The other types included Mr. Martin Smith's Cecilia, whose reputation of being the best yellow Carnation in existence has reached Stow. Orchids, flowering in January, which can be easily and inexpensively cultivated, were in evidence, but not largely. On the other hand, the vineries are extensive, and in the Cucumber house Tomatoes are grown in 6-in. to 8-in. pots. Of Grapes, Hamburgh and Muscat are the varieties principally grown.

Just by one of the houses were some Arum Lilies, lying down, and Mr. Orr observed: "Five years ago I commenced to treat Arum Lilies in a new way, namely, by gradually drying them off and then laying them down so that they got no water for the rest of the summer. People who want them to flower about Christmas should either repot them, or top-dress them with good soil, and start them fairly early in August, keeping a few later for succession. I am sure that this is the best way to do them."

Looking down an avenue of a mile long, on the north side, after a stroll in the new flower garden, which contains a tastefully-laid-out Rosery, I asked the acreage of the grounds.

"There are between fifty and sixty acres," rejoined Mr. Orr, "and include rather more than two acres of kitchen garden."

The latter, which is planned with great judgment, and walled in, has every variety of fruit and vegetables. Among the former are Figs, which, I learnt, do well in the open.

"And Peaches?" I queried, as we came to some which promised big crops of fruit.

"We have never missed a crop of Peaches. I think that they are quite as good as those grown in houses, as far as flavour is concerned. All ours are grown on the walls. The flavour is really made by plenty of rain and sunshine. As to Nectarines, the wasps give us a lot of trouble. There is an extra sweetness in them which the wasps, who do not like the roughness on the skins of the Peaches, seem to appreciate. At any rate, they do not touch the Peaches so long as there are Nectarines. They do not even wait for the fruit to ripen, but eat holes even through the nets."

"Is the trouble one that specially affects you, or does it extend to the district?"

"It extends to the district. The big fruit-growers all round are affected. In fact, the wasps do so much injury that many persons have ceased to grow Nectarines."

"How about Apricots?"

"In common with everyone else in the locality, we have done badly with Apricots for the last twenty years. Yet, thirty years ago, they did exceedingly well here."

"Can you account for the change?"

"No, I am not able to do so. We have tried fresh soil, but it seems impossible to get them to flourish again. The failure of Apricots is in striking contrast with the success of Peaches."

"Your Strawberries look well?"

"There is every appearance of a fair crop—much better, indeed, than for the last two years. The Strawberry crop about here is quite up to the average, and there is no chance that they will fetch a shilling a pound."

"Which varieties do you grow?"

"Royal Sovereign, President, Sir Joseph Paxton, and Laxton's Latest of All. The last is a beautiful Strawberry, with a fine flavour. The white tip spoils the appearance a little, and gives the impression that they are not fit to pick. But, with high cultivation, and frequent replanting, they are delicious, and prolong the season. We often have Strawberries from the end of June to the August Bank Holiday."

"Do you have any difficulty with Raspberries?"

"None at all, though I know that complaints are made in some quarters of the difficulties of Raspberry culture. But the Black Currant Mite has ruined the Black Currant crops in this district for many years—in fact, it has ruined a number of fruit-growers. The blight prevails over a wide area, and no cure can apparently be discovered."

"I see that you have an old Ribston tree?"

"Yes, Ribstons used to be the best Apples. Now, though the flavour is as good as ever, they are specked, and will not keep. Cox's Pippin has quite put their nose out of joint. As for Pears, I agree that Doyenné du Comice is the best all-round Pear, but Marie Louise, Bon Chrétien, Louise Bonne of Jersey, and Easter Beurré are very good."

"Do you force many vegetables?"

"Only Seakale, practically. We have the usual run, so that there is a continuous supply of vegetables. Asparagus grows better nearer the sea. It likes the salt."

It was not until we got to the picturesque house in which Mr. Orr resides that I could get him to talk about himself. As his name denotes, he is a native of Scotland, and he did not cross the Border until he came to Stow in 1870.

"As to my experience in Scotland," he said, "it was gained in several counties. I served my apprenticeship in East Lothian, and then I went to Sir James Fergusson's seat in Ayrshire, proceeding from Ayrshire to Preston Hall, Midlothian, then to the Duke of Buccleuch's seat in Selkirkshire, Lord Dunmore's seat in Stirlingshire, and finally to Hamilton Palace in Lanarkshire. In the last three cases I was foreman. I came to England soon after Mr. Carmichael came to Sandringham."

"Do you think that gardening operations are more difficult in England, or in Scotland?"

"As a rule, in Scotland. Here you have to encounter the drought; but there you have to contend with the frost and cold. There is more uncertainty, too, in Scotland. For instance, here the young men stay in their situations if they are comfortable, and in Scotland they go about from place to place in order to obtain fresh experience. No doubt it is good for the young men themselves to make frequent changes; but it is good for the head gardeners when they remain where they are."

"Have you done much showing?"

"No, only a little at the local shows. I was awarded three medals, which were assigned to the gentleman's gardener who took the greatest amount of money in prizes, and the largest number of prizes."

"Is there a Downham Horticultural Society?"

"It ceased to exist two years ago. Previously it had done well for about ten years, and we hope that it will presently be revived. After it collapsed, a cottagers' show for this estate was started, and it now extends to a district of eight miles."

"Who suggested the cottagers' show?"

"Our late vicar, the Rev. J. W. Adams, the only clergyman who possesses the Victoria Cross. Mr. Hare went with the movement heart and soul, and has done everything he could to make it popular."

"When did Mr. Adams leave?"

"At Easter. He has gone to Ashwell, in Rutlandshire. I am glad to say that he has promised to attend our next show. He is greatly esteemed here, and his departure, on account of his health, was much regretted. One of his last words was that the flower show must be kept up for the sake of the working people on the estate. Mr. Leigh Hare is entirely in accord with him, and is the principal contributor to the funds."

Alfred Wilcox.

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During the winter it is needful to see that Strawberry plants do not become seriously disturbed by frost or moles. If they are loosened, the soil should be well firmed around them again, and all should be secure by the time growth starts in early spring. If there have been a few losses, it may be advisable to fill up the gaps with other plants if any are at command. This should be attended to as early in March as the weather will permit.

## CYPRIPEDIUMS.

(*Continued from Page 226.*)

C. MORGANIÆ is a splendid hybrid, rather rare in collection. The flower-scapes are somewhat tall, and are three-flowered, with rosy-white sepals and deep-red veins. This is one of Messrs. Veitch and Sons' hybrids, but it is not quite so free a bloomer as the following. C. Sedeni is a free-flowering and most popular plant. The flowers of this variety open successionally, so that the plant is scarcely ever out of bloom. It is named in compliment to that successful Orchid-raiser, Mr. John Seden, who has raised such a great number of beautiful hybrids. This variety seems to flourish best when grown along with the Cattleyas.

C. Rothschildeana-Lawrencianum.—This is a remarkably strong-growing hybrid, with very large, spreading flowers, the petals light green, sepals similar in colour, but white at the margin, and striped with dark purple; it blooms in June and July. C. Charles Richman is another beautiful form. C. Charlesworthii, C. insigne Dorothy, C. minosa, C. Swinburnei, and C. Statterianum, are a magnificent lot of hybrids, almost unrivalled at the present time.

### Hardy Cypripediums.

If there is no convenience for growing the species and hybrids named above under glass, the hardy varieties prove most interesting for outdoor cultivation. Any shady nook will suit them, providing the soil is suitable; this should consist of bog-peat, leaf-soil, a little mortar-rubble, and plenty of coarse sand. The hardy Cypripedes are most effective, especially when grown in clumps, and their bright colours surpass many of the tropical kinds. But, of course, when grown outside, they have to withstand the wind and rain, which soon disfigure them if not protected in some way. They can be grown in pans in cold frames, but they do not look so nice and so natural thus as when grown outside, and they will also require more attention in watering, airing, and shading to keep the plants in a healthy condition. Cypripedium calceolus is one of the most beautiful of our British Orchids, and not very plentiful; it is very free-flowering, and of vigorous habit; the flower-spikes are about twelve inches high, with sepals and petals of a brownish-purple, and the lip golden-yellow, with a beautiful scent.

C. parsiflorum is another interesting kind, growing over a foot in height, and bearing several flowers on a spike; these are brown, with the lip pale yellow, and very fragrant.

C. acaule.—This species is called the stemless Lady's Slipper, and is very distinct and pretty; the flowers are purple, with rose-coloured lip. C. spectabilis is about the best of the hardy group. It grows eighteen inches in height, and sometimes bears three flowers on a stem. When a good batch is seen in bloom it is a sight not soon forgotten.

The most suitable time of the year for planting and replanting the hardy kinds is in September and October, the former month preferred, as the foliage will then have quite died away and the new crowns be just on the move again. When planting, care should be taken not to break any of the eyes off, or it will weaken the plant considerably, and the roots should be planted about three inches under the soil.

The most troublesome pest these plants have to contend with is snails and slugs, which usually attack the growths on their first appearance. These should be caught at night, which is generally their feeding time.

Insects which are partial to the tropical species are brown and white scale, thrips and green-fly; fumigation will kill the two last, and the other can be got rid of by sponging.

T. W. Birkinshaw.

**ORR** John Willie of 3 Belgrave-road Rathmines county **Dublin** esquire died 24 February 1916 Administration **Dublin** to Jane Evelyn Louisa Orr spinster.
Effects £339 7s. 10d. in England.
Sealed **London** 2 June.

**ORR** Robert the reverend of the Vicarage Thurleigh **Bedfordshire** clerk died 10 October 1916 Probate **Northampton** 27 October to Josiah Hartop assistant overseer. Effects £378 17s. 11d.

**ORR** Robert John of Airmount Clonmel county **Tipperary** died 26 September 1915 Probate **Waterford** to Henry James Fitzgibbon Orr gentleman. Effects £391 14s. 6d. iu England.
Sealed **London** 5 February.

**ORR** Sophie Percy of The Croft Gordon-road Camberley **Surrey** widow died 14 January 1916 Probate **London** 25 May to Robert Alexander Patterson broker. Effects £5345 1s. 3d.

**ORR** Theodora Frances of St. Margarets North **Berwick** died 22 October 1914 Confirmation of Edith Constance Or..
Sealed **London** 1 November.

**ORR** Thomas of "Fraserton" Craigmore **Bute** died 9 November 1915 Confirmation of William Guille Orr.
Sealed **London** 27 January.

**ORR** William of Downham Market **Norfolk** died 24 October 1916 Probate **Norwich** 29 December to Isabella Harriet Coe (wife of George Harry Coe) and sir Thomas Leigh Hare baronet.
Effects £792 7s. 7d.

**ORR** William Orr of the Kaim **Lochurmock** died 30 December 1915 at sea Confirmation of James Maclay writer.
Sealed **London** 16 June.

**ORRED** Matilda Katherine of Woodlands Ticehurst **Sussex** spinster died 6 July 1906 Administration **London** 6 June to Alex na Katherine Orred spinster. Effects £356 19s. 1d.

**ORRELL** Alice of 278 Wigan-road Ashton-in-Makerfield **Lancashire** (wife of Nathaniel Orrell) died 3 November 1916 Administration **Liverpool** 16 December to the said Nathaniel Orrell coal miner. Effects £134 12s. 9d.

**ORRELL** Ann of the Royal Hospital for Incurables Putney **Surrey** died 3 January 1916 Probate **London** 14 February to Thomas Thorn merchant s c erk (retired).
Effects £15 16s.

**ORRELL** Elizabeth of 4 Charter-street **Rochdale** widow died 9 December 1915 Administration **London** 15 January to James Orrell weaver. Effects £102 2s. 2d.

**ORRELL** Richard of 26 Old-doctors Tottington **Lancashire** died 27 November 1915 at the Bury Union Institution Bury Lancash re Probate **Manchester** 24 January to Samuel Hughes machine engraver. Effects £49 18s. 3d.

**ORRELL** Samuel of 95 Manchester-road Ince-in-Makerfield **Lancashire** died 3 October 1915 Adm nistration **Liverpool** 12 April to Elizabeth Orrell widow. Effects £1768 16s. 4d.

**ORR LL** Joseph Pollard of Spa Lane Hinckley **Leicestershire** hosiery manufacturer died 19 April 1916 Administration **Leicester** 2 June to Annie Allen Orrill widow.
Effects £1400 12s. 6d.

**ORRISS** Margaret of the Royal Hotel Tring Station **Hertfordshire** widow died 31 March 1916 at Hill End St. Albans Hertfordshire Probate **London** 9 June to John Henry Girling bank clerk. Effects £737 7s.

**ORRISS** William of Ramsey **Huntingdonshire** died 17 November 1915 Probate **London** 28 October to Mordaunt Wells Newton draper. Effects £1031 3s.

**ORSBORN** Mary Florence of Sunny Rest Sandhurst **Berkshire** widow died 13 June 1916 Probate **London** 13 December to Arthur John Coleridge Mackarness solicitor and John Mayne Co.les K.C. Effects £17527 18s. 6d.
Resworn £17799 19s. 6d.

**ORSBORN** Mary Oram of Everlange Ridgeway-road Farnham **Surrey** spinster died 1 April 1916 Probate **London** 9 June to Walter Edwin Budd corn merchant and Louisa Jefferis widow. Effects £3022 2s. 2d.

**ORSBORNE** George of 27 Testeron street Notting Hill **Middlesex** private 32nd Royal Fusiliers was killed 4 July 1916 in France on active service Administration (with Will) **London** 11 August to Emily Clayton widow. Effects £29 2s.

**ORSMAN** Thomas of Teignsnape Shaldon St. Nicholas **Devonshire** mason died 9 May 1899 Administration **Exeter** 15 December to Edward Cumming Orsman mason.
Effects £467 15s.

**ORSONI** Pietro of Venice **Italy** died 22 October 1915 Administration **London** 17 June to Anna Orsoni spinster.
Effects £700 15s.

**ORTIGOSA** y de los Rios Manuel of Calle Plaza S. Fernando 19 Seville **Spain** died 4 May 1914 Administration (with Will limited) **London** 18 November to Santiago Labarda y Lopez attorney of Manuela O tigosa y Romero.
Effects £4872 13s. 2d.

**ORTON** Alfred James of Pingle House Enderby **Leicestershire** farm help died 22 January 1903 at Newbold Verdon Leicestershire Administration **Leicester** 21 August to Walter Orton farmer. Effects £1261 14s. 11d.

**ORTON** George Ernest of Aberdeen House 81 Holly-walk **Leamington Spa** lance corporal 2nd battalion Coldstream Guards died 28 March 1916 at 18 General Hospital Camiers France Probate **Birmingham** 3 July to Annie Catherine Orton widow. Effects £105 7s. 9d.

**ORTON** Mary Ann of Wayside-cottages Ansley Village **Warwickshire** widow died 19 October 1915 Probate **London** 20 January to Thomas Orton grocer's assistant.
Effects £622 15s.

**ORTON** Mary Ann of 137 St. Saviour's-road **Leicester** widow died 22 May 1916 Probate **Leiceste:** 2 June to Theodore Arthur Orton coal merchant and Edward Henry Agar retired coach trimmer. Effects £102 10s.

**ORTON** Mary Ann of 159 Ashley-road Hale near Altrincham **Cheshire** spinster died 6 August 1916 Probate **London** 2 September to Louisa Orton spinster. Effects £1585 6s. 1d.

**ORTON** Mary Elizabeth of Ortonville 38 Park-road St. Annes-on-the-Sea **Lancashire** spinste died 7 June 1916 Probate **London** 14 July to Joseph Henry Marsden timber merchant.
Effects £6430 5s. 10d.

**ORTON** Olivia Harriet of 157 Newbridge-hill **Bath** w dow died 10 November 1915 Probate **Bristol** 22 February to Agnes Elizabeth Orton and Laura Orton spinste s.
Effects £2965 9s. 3d.

**ORTON** Robert Desmond of 21 Norfolk-square **Brighton** died 25 September 1915 in France Administration (with Will) **Lewes** 26 May to Sarah Louisa Orton widow. Effects £304 os. 9d.

**ORTON** Thomas of 47 Bescot-road Walsall **Staffordshire** died 14 December 1915 Probate **Lichfield** 29 February to Edward Cotton Orton butcher and Wilfred Thomas Orton timber merchant. Effects £3071 5s. 10d.

**ORTON** William of 16 Ashbury-road Lavender Hill **Surrey** died 23 February 1916 Probate **London** 1 April to Esther Orton widow. Effects £1625 14s. 9d.

succession from bottom to top. The mistake often made in cutting them is to wait until they are open very nearly up to the top, whereas they should be cut as soon as the first two or three are open.

**The Distribution of Insects.**

September 11th.—The distribution of insects in different years is very curious. Ants usually abound in hot, dry seasons, yet this year they have been remarkably scarce. Ants and aphides generally go together, the latter utilising the former, and, no doubt, performing some service in return, and the law which governs the distribution of the one, whatever it may be, seems to apply also to the other. At any rate, aphides, like ants, have been singularly few, though one would have expected that the check to growth caused by drought would have favoured their increase. On the other hand, slugs and snails which certainly prefer moisture, have been extraordinarily numerous. Apparently, then, we must look for the dominant factor to some antecedent condition. In the case of slugs and snails, it may, perhaps, be found in the abundant moisture of last year; but what is one to say about ants and aphides. We have evidently a good deal to learn about them yet.

**The Seven Sisters Rose.**

September 12th.—Has the old-fashioned Seven Sisters Rose been re-named? It is not given in the National Rose Society's list, nor can I find it in any catalogue; yet it is still grown in many gardens. And, as the illustration shows, a wonderful Rose it is, covered every year with hundreds, if not thousands, of pinkish-white flowers, and growing as luxuriantly as a Bramble. It soon covers a trellis, and forms an impenetrable hedge.

H. C. DAVIDSON.

# The Gardens at Wykehurst Park, Bolney.

INTERVIEW WITH MR. J. OSBORNE.

IT is a long drive from Hayward's Heath Railway Station to Wykehurst Park, but through charming Sussex scenery, and Wykehurst itself is thoroughly well entitled to take rank amongst the "Stately Homes of England." The noble mansion, which is of modern design, was built in 1874; and the extensive gardens by which it is surrounded were laid out at the same time. They are entirely in keeping with it, and embrace several exceedingly interesting features. When, by the courteous permission of Mr. Edward Huth, J.P., the owner, I visited them in the middle of August, in glorious weather, Mr. Osborne, the head gardener, suggested that we should make a start with the Italian garden, near the front entrance.

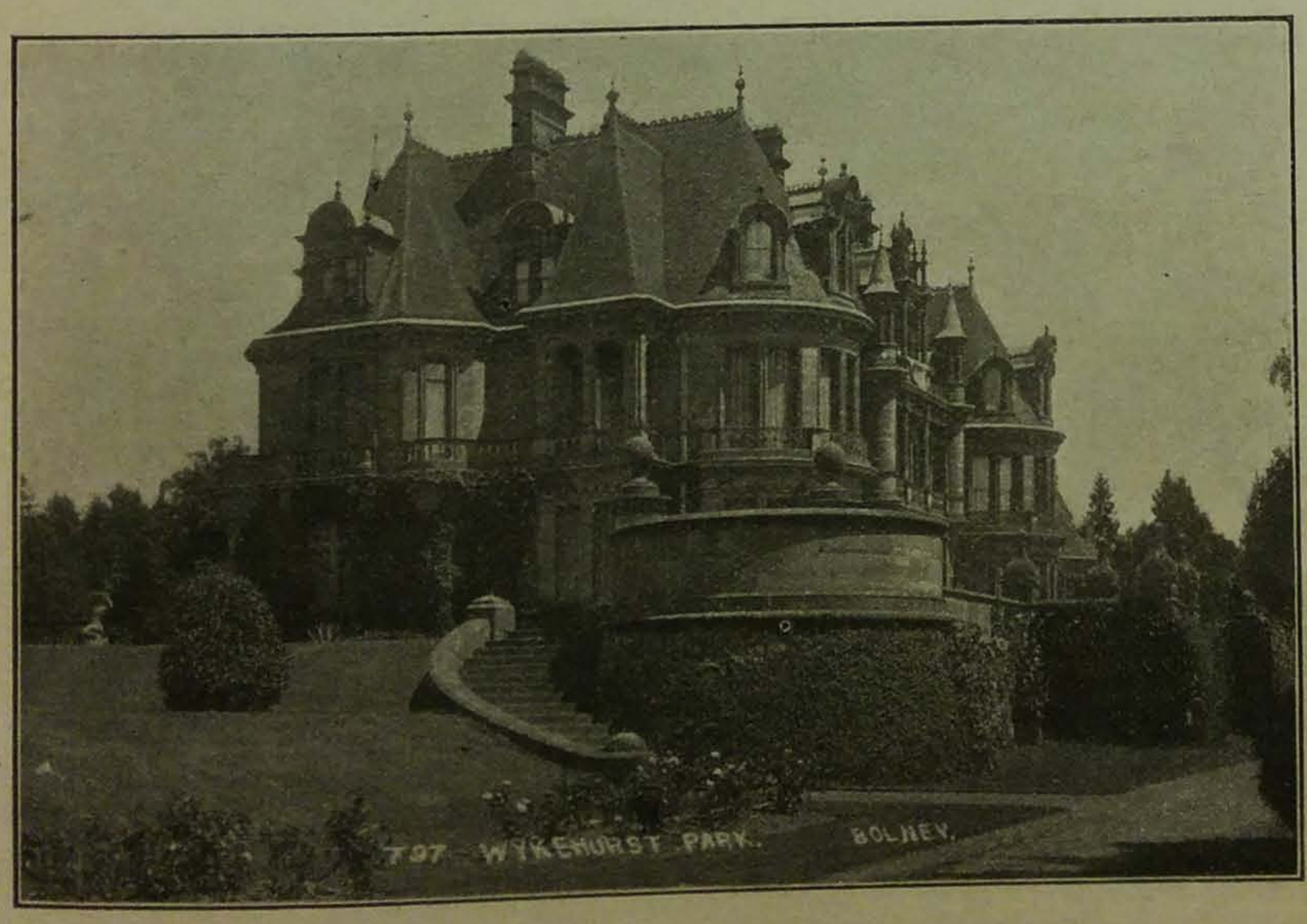
**Combinations of Colour.**

"There are four beds here," said Mr. Osborne, "with Geraniums Madame Salleroi (the non-flowering), and four with Begonias Fairy Queen, forming a pink and light green combination. The eight round beds are filled with Alternantheras Fire King, edged with Echeverias, a combination of crimson and grey; eight with centres of Alternantheras (gold and yellow), edged with Centaureas (green and grey). In two beds, with an Aloe in the centre, are Sedums (green and grey). The sundial in the middle of the whole makes a conspicuous feature."

From this tastefully-laid-out garden, which, like the rest, is only bedded for the summer, we proceeded to the upper terrace, commanding a splendid view of the Sussex Downs, with an extensive lake in the valley below. On the terrace itself were Hydrangea hortensis, and Agapanthus in tubs, with a pretty display of Geraniums Crimson King in pots. In a recess at one corner was a wonderful specimen of Wistaria sinensis, and I asked how long it had been in flower.

**Flowering Shrubs for Table Use.**

"This is the second time of flowering," replied Mr. Osborne. "It flowered quite early in April. There is only one plant, and it has been here for twenty-two years."




WYKEHURST PARK, BOLNEY, FROM THE SOUTH-WEST.

"The foliage is almost as ornamental as the flower. Do you feed it?"

"I take the turf up in the autumn, and put in a little new soil about four feet round, feeding it with the manure in which Mushrooms are grown. On the wall below are several other flowering shrubs, notably Ceanothus fragrans, Escallonias, Magnolia grandiflora, the Japanese variety of Lonicera, Vitis Coignetiæ, Choisya ternata, Cotoneaster, Jasminium primulinum, and Clematises Lady C. Nevill, flammula, and Mrs. George Jackman. We cut the flowers of some of the shrubs for table decoration."

"I should like to know which."

"Choisya ternata is very useful in the spring, and lasts four or five days in water. Abelia rupestris, which has a very pretty white flower, serves the same purpose, and Ceanothus fragrans is also quite decorative. I am surprised that flowering shrubs are not turned to more account for table decoration."

MR. J. OSBORNE.

"Roses seem to do well on this wall."

"Yes; Reve d'Or, Gloire de Dijon (the red variety), William Allen Richardson, and the ordinary Gloire de Dijon, do especially well.

"You have a fine show of Antirrhinums in the garden at the bottom of the terrace."

"We put them out in April, having sown the seed in boxes in the middle of February. The smaller they are when they are pricked off, the better. These large beds take a great quantity. The tall-growing are scarlet and golden, and they are edged by dwarf white and dwarf yellow. They are Sutton's new hybrids, and will last in flower until the frost cuts them down. There are eight specimen plants of Holly in this garden."

**The Dutch Garden.**

"And the Dutch garden, with its attractive display of dark blue?"

"There are two scrolls of double blue Lobelia, which started in flower at the end of May, and still supply a blaze of colour."

"When do you propagate them?"

"In the middle of March, and the plants will strike almost like weeds. There are three grey beds of French Lavender, with an Aloe in the centre; two of Geraniums Golden Harry Hieover, and two of Alyssums Little Dot (white)."

"There is not much in the way of creepers on the walls of the mansion."

"Only a little Virginian Creeper on one side, and Ivy on the other. On the terrace walk is a fine specimen of Weeping Ash; and the two Rose beds at the side of the terrace are all planted with Hybrid Perpetuals for cutting."

From the terrace walk we made our way to The Dell, a beautifully sequestered spot. Here

the common Spruce, Berberis in variety, Camellias, Magnolias, and Leycesterias flourish on the border, where also Ferns in variety luxuriate."

"Is there iron in your soil?" I inquired, observing that the Hydrangeas were blue."

"Yes; there must be a vein of iron to account for the change in colour. A good deal of the soil is strong clay, with sandstone underneath, but it varies greatly. As you see, Crimson Rambler Roses and Tree Lupins thrive in The Dell."

"And Lythrum roseum, with an abundance of flowers. I am also struck by the appearance of the Laurels here."

"They are the new and very hardy L. Schipkænsis, which I prefer to the old. The foliage is a prettier shade of green. Deutzias and Tritomas are likewise at home on the banks."

"How large are the gardens?" I asked, as we walked to the top of the bank.

"About twenty acres, and the park about three hundred acres. Here, at the top, Buphthalmum aquaticum flowers well, but it needs a quantity of water."

"Your Olearia Hastii is like a pyramid of snow."

"If we wanted white, we should cut the flowers for decorating the tables. It will last for a second night. By the way, we use Escallonia for the same purpose. This is the only place where we can grow Pittosporum Mayii. Pæonies, Fuchsias, Dicentra spectabilis, Spiræa prunifolia, Asters ericoides, and Lithospermum prostratum are among the other varieties."

**Water Lilies for Cutting.**

"The border, which begins at this point," continued Mr. Osborne, "goes right along to the Lily pond."

"Have you many varieties in the pond?"

"Only the white Nymphæas at present, but we are going to plant a number of others. We sometimes cut the Lilies, to place on a large table."

"How do you get at them?"

"By means of a ladder between two planks, a man is kept above water while he cuts as many Lilies as we want. They will only serve for one dinner, and they droop in extreme heat. But while they last they look very nice. On the sides of the pond, the Buckthorn does well. Proximity to the water also suits the new pink variety of Spiræa, Queen Alexandra. This is the first time we have grown it."

**Valerianas and Gaillardias.**

"Before we discuss the numerous borders, which seem to run in every direction, you might tell me the names of the principal specimen trees on the lawn, some of which are very fine."

"They include Picea Nordmanniana and P. nobilis glauca, Retinospora filifera, Squarrosa Veitchii, and obuta gracilis aurea, Cupressus erecta viridis, macrocarpa, and Lawsoniana. In addition to these, there is a collection of ornamental trees of different varieties planted in belts."

"What is the blaze of red in the herbaceous border?"

"The red variety of the Valeriana. We grow it entirely from seed, and it is at its best in July. Another variety which is easy to grow from seed is the Paris Daisy, which we planted out about two years ago. In this border many things are grown for foliage, as well as for flower, such as Geranium King of Denmark, and Anchusa italica (Dropmore variety)."

"You have a pretty variety of Gaillardia—a rosy-claret."

"Yes, it is very ornamental. If the seed is sown in March, the plants will flower the same year, and continue to give blooms in the winter."

**Roses from June to November.**

"In the other border, shrubs appear to be very prominent."

"They include a number of varieties, such as the Golden Elder, the Dartmoor Crab, a few plants of Liquidambar and Clerodendron trichotomum (three-forked) as a tree. It has been grown for two years. We put a little cinder ashes round the roots; this preserves it sufficiently during the winter. In the recess close by are Everlasting Peas, mixed with Clematis montana, which keep on flowering for months; and the Rose basket, made up of Ivy and Roses, consists entirely, as to Roses, of Caroline Testout, which flower as early as June and as late as November."

"What are the features of the terrace border?"

"Well, later on, we put in Chrysanthemums to flower. The best early varieties are Madame Desgrange, Market White, G. J. Warren, Godfrey's Pride, Mrs. C. Beckett, Mrs. W. Knox, C. H. Curtis, Madame Carnot, Mafeking Hero, Merstham Crimson, Mrs. T. W. Pockett, and Mutual Friend."

"Do you go in largely for Chrysanthemums?"

"We grow about one thousand of the late sorts. The eight best are Western King, Winter King, Framfield Pink, Kentish Yellow, W. H. Lincoln, Winter Queen, and Mrs. H. Cannell. Speaking of the contents of the border, the Paris Daisy flourishes here, and other suitable varieties are Helenium auratum, Roses (very

CARPET BEDDING AT WYKEHURST PARK.

tall), Nicotiana in variety, Phlox Drummondi, Gypsophila paniculata, Campanula calycanthus rosea, Asters amellus bessarabicus, a very rich lilac-purple variety, and Hyacinthus candicans."

**The Picking Garden.**

Then, passing a large tennis court, with Laurel hedges, a fine bed of Azalea mollis, and the West Lodge, with its handsome gates, made at Chichester, we arrived at what is called the Back Walk, leading to the Fernery.

"Here," said Mr. Osborne," "we grow beds of Rhododendrons. One containing Mrs. John Clutton (spotted white) only, was made this year. There is no peat in the soil, and I am satisfied that the best varieties of Rhododendrons will do as well in ordinary soil as in peat. The bed opposite includes Mrs. John Waterer, Pink Pearl, and others. In the stable border are much the same varieties as in other borders, except that it includes Clarkias, Marigolds, and Salvias. The Ferns are all hardy varieties."

Here we paused a minute to observe the complete, new, and up-to-date apparatus for protection against fire—a very important precaution, bearing in mind the distance of Wykehurst from any town. Mr. Osborne having mentioned that the inspector comes to drill the staff four times a year, we next inspected the picking garden, which is a striking combination of the useful and ornamental. It is of considerable dimensions, has on one side a very fine Beech hedge, and on the other a Yew hedge.

"What is the height of the Beech hedge?" I asked.

"Nine feet; and it is six feet through. We use this garden entirely for growing flowers to cut. Here are beds of Spanish Iris, Marigolds, Musk, Begonias, Pinks (Her Majesty), Mignonette, Lilies of the Valley, and Rose Frau Karl Druschki. You get a peep from here at intervals into other parts of the garden, and into what we call the Garden Wood. It is quite open, and natural."

**Peaches on Trellis.**

"All your houses are in the kitchen garden?"

"Yes; and we might start with the Vineries."

"When do you begin to cut Grapes?"

"The first week in June, and go on until December. In the two Vineries we grow Black Hamburgh, Foster's Seedling, Muscat of Alexandria, Gros Colmar, and Madresfield Court. The crops are excellent."

"So are the Peach crops."

"The Peaches in both houses are trained on the wall, and also on a trellis, with the result that we invariably get heavy crops. They fruit right up to the top of the trees, and down to the bottom of the trellis. Figs we also grow in pots, and on the wall. The varieties are White Marseilles, St. John, Brown Turkey, and Negro Largo. I think the best way to grow Figs is in pots. When they have done fruiting in October, we put them in an old shed, and cover them up. We force them in the early Vinery, and bring them into the Fig-house later. After they are over, we bring in the late-flowering Chrysanthemums."

"What is the name of the splendid double Geranium in flower on the walls of the Fig-house?"

"Cannell's Crimson King, which goes on flowering all through the winter, and is of the greatest value to us."

"I see you have a Carnation-house. What are the best varieties?"

"Enchantress, General Buller, Mrs. Reynolds Hole, and Gloire de Nancy, old Crimson Clove, old White Clove, Mrs. Leopold de Rothschild, and Winter Cheer. Outside we grow five hundred Border Carnations. These, and about two thousand Antirrhinums, are used for bedding out and planting the borders."

"You have a large collection of Dahlias just outside the houses."

"About one hundred of up-to-date varieties, chosen for colour. They are the Cactus section, and those now in flower include Jackson (one of the best dark), The King, Peacock, Countess Dudley, F. W. Wilkinson, and Alexander."

"Then there is the Palm-house."

"A great number of Palms are used in the mansion, and Ferns in hanging pots are quite a feature. As to other houses, there are two for Melons, in which we grow Hero of Lockinge, Blenheim Orange, and Windsor Castle. In the two Cucumber-houses, early and late, are Carter's Model and Telegraph. Tomatoes are grown inside and out. Inside, the variety is Lawrence's No. III., one of the best; and both inside and outside, on the walls of the Palm-house, Carter's Early Sunrise."

**The Best Pears and Apples.**

"How is most of your hardy fruit grown?"

"We grow two hundred cordon Pears on the Quince stock, of which I find the best of sixty varieties are Bergamotte Esperen, Beurré Clairgeau, Beurré d'Amanlis, Beurré Hardy, Beurré Diel, Beurré de Rance, Beurré Superfin, Bishop's Thumb, Doyenné du Comice, Duchesse d'Angouléme, Jargonelle, Marie Louise, and Knight's Monarch. Apples are grown on the bush."

"You might give me twelve of your best varieties."

"Bismarck, Blenheim Orange, Bramley's Seedling, Cellini, Cockle Pippin, Cox's Orange Pippin, Duchess of Oldenburg, Gascoyne's Scarlet Seedling, Gravenstein, Keswick Codlin, Lord Suffield, and Warner's King. On the walls we usually get very good crops of Plums, Figs, Apricots, and Peaches."

"Have you anything special in the way of vegetables?"

"Peas are very largely grown—upwards of thirty quarts are sown. We began picking on May 14th, and continue far into the autumn. The best variety is William I., of which I shall have a second crop in September. The chief varieties of Potatoes are Early Puritan, Carter's Advancer, First Crop, Up-to-Date, Sutton's Maincrop, and Redskin Flourball."

"And your own career, Mr. Osborne?"

"I think I may sum that up in the statement that I have been gardener at Wykehurst Park for twenty-two years."

ALFRED WILCOX.

# Letters from a Lady Gardener.

## No. 320.—DECORATIONS FOR THE DINNER-TABLE.

DEAR KATE,—So you wish for a few hints on table decoration. There are now several different styles in which this may be carried out, as some people object to the taller arrangements on account of their isolating one side of the table from the other, so that very simple plants are preferred. But if you mean to compete for a prize at a flower show, it is of no use to send in a flat-looking decoration, as they appear very poor when compared with high groups. In fact, so far as I have studied the table decorations at flower shows, I have often come to the conclusion that the prizes were awarded more for the elegant glass centrepieces used by some competitors, than for the flowers; but I hope this is not always the case.

**A New Idea.**

A new and very pretty idea is a fountain of flowers in the centre of the table, with smaller fountains at the corners; and for this purpose you will need five of the useful floral-aid wire things, which hold up tall flowers so delightfully. The pretty, fluffy table centres of ten years ago have gone out of fashion, and only flat pieces of lace (or chiffon with a frilled edge) are now laid over an oblong or square piece of coloured sateen in the centre of the table-cloth, on which you can place a bowl, a soup-plate, or any rather large and shallow receptacle for water, and stand the highest floral-aid you can get (if for a large table) in this.

You must then imagine the jets of water which are thrown up by a fountain, a tall one in the centre, and others falling in graceful curves towards each corner of the table, with secondary jets between each, not quite so long as the four principal ones, unless the decoration is for a round table. Each of these long sprays must be most carefully wired, and for this purpose you will need not only a reel or two of very fine, dark wire (sold for the purpose at flower-shops), but also some long, straight pieces of wire (such as those used in making a shower bouquet), and you should wire as many of these as you will want for each spray firmly together before you begin.

For a fountain of flowers, small blossoms are necessary, and also a large supply of Smilax, Feather Asparagus (A. plumosus, commonly, though wrongly, called Asparagus Fern), or long fronds of Fern such as those of Onychium japonicum, which is very light in effect, and does not shrivel up so quickly as the Maidenhair Ferns do. Then cover your sprays lightly with the greenery you have selected, and at intervals add little light sprays of the flower you have chosen. This is much easier to do in the summer than in the winter, when small, and yet suitable, flowers are scarce.

**What to Use.**

Wichuriana Roses, such as the bright pink Dorothy Perkins, make a charming fountain, or Sweet Peas may be used with great effect, especially those in pink, for this is the best of colours for table decoration, especially for use in artificial light. But the blossoms must be arranged with taste, not wired on too tightly, but allowed to droop a little as though they were falling drops of water, the foliage being above them in a graceful curve, which should carry each of the principal jets to within a foot of the table, where it should end with a fine point of greenery. Tall Grasses, Oats in a green state, Gypsophila, or Asparagus foliage, can be substituted for the other greenery before mentioned, if preferred—the two first giving a very light and pretty effect.

Small but brilliantly-coloured leaves of the Ampelopsis Veitchii, too, can be used instead of flowers, or with small white flowers (such as Jasmine) and Grasses, of which those which droop like Oats are the best to select. The bowl in which the fountain stands can be lightly filled with the same flowers and greenery, and sprays may be carried over on to the table centre, finishing at the corners of this. Smaller fountains can be placed at the corners of the table, with long sprays from them, if the table be oblong, or it may be necessary to add more small fountains at intervals, for a very long table, but these are not generally needed.

For a winter dinner-table, you might use the drooping bells of Roman Hyacinths, or carmine Bouvardia blossoms, Libonia floribunda, or Salvia splendens for a fountain; but all flowers needed for decoration should be well steeped in tepid water up to their necks before they are wired on, and the work must be done within an hour or so of the entertainment, in order to ensure their freshness. It takes several hands to quickly carry out an elaborate decoration such as this, for the work of wiring these long sprays cannot be done in a hurry.

**Arches, Baskets, and Bowls.**

Other designs, such as little arches of flowers surrounding the table, with a taller centrepiece, are pretty; and baskets of a graceful shape, with tall handles, which can be wreathed with light greenery, are most suitable to show off Roses, or any of the larger flowers (which must, however, be well wired), to the best advantage. Smaller baskets of the same shape are used at the corners of the table, and these baskets can, if preferred, be enamelled white before they are used, when they look like Coalport china. Antique china bowls, each containing a tall specimen glass, can be selected, but it is not easy to arrange flowers in bowls, unless these are nearly filled with silver sand, as well as water, to support the stems. Here, however, the floral-aids come in usefully, and can be used instead of tall, central glasses.

Always remember, in arranging bouquets of any sort, that lightness of touch is absolutely necessary to good effect; flowers should never be crowded together, but each blossom must show itself separately, and to the best advantage. Those who understand this art can do much to decorate a room or a table with the amount of flowers which others would use to fill one vase; but, of course, light greenery must be also used to set off the flowers. Often the leaves of the flowers selected form the best greenery for its display. This is the case with Daffodils, Aquilegias (of which the long-spurred varieties are very elegant), and Roses; but Pelargoniums, Cactus Dahlias, and all flowers of which the foliage is somewhat heavy, look best with Feather Asparagus, or Ferns, Grasses, etc.

AN ANGLO-INDIAN DINNER TABLE.

**An Anglo-Indian Decoration.**

The Anglo-Indian plans of table decoration, so deftly carried out by the native servants of India, are very simple, and can be modified with ease to suit any table. They also do not interfere with the sight of your opposite neighbours on the other side of the table, and are therefore preferable to more elaborate decorations for general use. In the centre you can place a lamp, a basket, or tall glass with flowers in it, a silver epergne, a basket or fruit, or, in

highly improbable they can know that the lateness of the Ash renders it useless for their purpose. Possibly the reason why they almost invariably avoid the Yew, which would seem to be a capital place for nests, is that the poisonous leaves may have an unpleasant odour, perceptible to their senses, though not to ours. That birds have a very keen sense of smell must, I think, be admitted. To mention only one instance, how else could they discover that a row of Peas is buried at a certain spot? They never make a mistake; they don't go digging and delving at random; they go direct to the row and follow it right along.

April 17th.—Some experiments made with nitrate of soda at New Jersey, by the State Agricultural Board, are worthy of notice. I will take one series alone. A crop was grown on a plot of ground, and half of it was left unmanured, while the other half received three applications of the nitrate at the rate of 300 lbs. per acre. The difference between the two halves

Mr. Charles Page.

was in most cases remarkable. In the case of Carrots, the yield was increased from 8,720 lbs. to 10,290 lbs.; of Cabbages, from 910 lbs. (good heads only reckoned) to 5,390 lbs.; of Celery, from no good roots to 14,940 lbs.; of Tomatoes, from 7,390 lbs. to 10,930 lbs. (with a smaller application—200 lbs.—the yield was 13,270 lbs.); and of Turnips, from 8,230 lbs. to 13,360 lbs. From these figures it would be easy to show that the cost of the manure is repaid several times over by the enhanced value of the crop. Still, this fundamental fact should not be forgotten, that nitrate of soda should not be applied alone, year after year, to the same ground. That has been proved again and again.

April 18th.—Some time ago, a friend sent some Begonias, which he had found in Assam. They were potted up, placed in heat, and are now growing well. There are four or five kinds, all with handsome leaves of different shades of green above and red below, and the flowers are of the Semperflorens type, though much larger, and produced on long, stout stems. I have not yet been able to identify any of them with certainty, but it seems to me that they possess qualities which should render them valuable for hybridising. In spite of the enormous improvement in the Begonia of late years, it still possesses several defects, chief among them being the fact that so many of the flowers need to be supported with sticks, a tendency that, unfortunately, appears to be on the increase. A little more vigour is wanted to cure this defect, and this, in all probability, can be more easily introduced by hybridisation than by selection, always a very slow process. Again, is it too much to hope that these beautiful flowers may yet be scented? There are at least two species of Begonia with scented flowers; why should not, by this means, others be scented also? Here, I think, is a fine chance for the hybridist.

H. C. Davidson.

*(To be continued.)*

## FAMOUS GARDENERS AT HOME.

No. 82.—Mr. CHARLES PAGE, at DROPMORE GARDENS, MAIDENHEAD.

UNQUESTIONABLY one of the most interesting estates in the English home counties is Dropmore, which a little over a century ago was founded and embellished by Lord Grenville, and is now the property of Mr. J. B. Fortescue, who inherited it on the death of Lady Louisa Fortescue, three years ago. The nearest railway station to this lovely place is Taplow, and the drive, of some miles, is through pretty scenery. It is a considerable distance from the lodge gates to the house, and all the surroundings convey the idea of natural growth. Trees and shrubs and plants alike suggest the idea that the greater part of the estate has not been cultivated. As a matter of fact, however, when Lord Grenville determined to purchase Dropmore, it was in a state of cultivation, and under his auspices the whole of it was created in its present picturesque beauty. Mr. Charles Page, the head gardener, who took me over the grounds—which, by the kindness of Mr. and Mrs. F[illegible] open to the public three days a week—at the first time would permit, amazed me at the outset by describing a stump close to the mansion as the remains of the only tree which existed on the estate when Lord Grenville saw in it inherent possibilities of transformation.

"And all the Conifers and trees," I said, "were planted within about a hundred years?"

"It a hundred and two years since the whole estate, with eight hundred acres of land inside a ring fence, and about twenty acres of garden, including woodland paths, was laid out," replied Mr. Page.

"Lord Grenville was, of course, specially interested in Conifers?"

"He had, I believe, a great fondness for them, and understood them well. Dropmore has certainly long had the reputation of possessing the finest Conifers in Europe. They are still the most notable feature of the estate. Indeed, Dropmore might well be called the home of Conifers in Engand. Many of the best specimens were planted by Philip Frost, who was for so many years head gardener here."

"Perhaps you would indicate some of the most celebrated specimens?"

"First of all, there is Abies Douglasii. The Douglas Spruce at Dropmore is known far and wide. The seed which produced this tree was sent to Lord Grenville by the Royal Horticultural Society during the winter of 1822-23. It is now upwards of a hundred and thirty-one feet high; its girth at five feet from the ground is eleven feet six inches, and the spread of branches is seventy feet. Another splendid specimen is the Pinus insignis, planted in 1839. Philip Frost brought this tree from Chiswick Gardens."

"But your fine specimens seem endless?"

"They are very numerous. Pinus Lambertiana is one of the most striking. It was raised from seed given to Lady Grenville in 1843 by the Duke of Buccleuch. It is considerably over seventy feet high, with a girth over eight and a-half feet. Pinus monticola, Pinus Benthamiana and Pinus escarena should also be mentioned. Abies Brunoniana is a fine specimen in the Pinetum. Sequoia sempervirens, carrying canes, is a hundred and fourteen feet high. Unfortunately, as I pointed out to you, the large Araucaria, considered the finest Araucaria imbricata in Europe, is dead. It was seventy-six feet six inches high. There are many specimens of Araucaria which are handsome and flourishing."

"How long is your Cedar avenue?"

"A quarter of a mile. I may mention that this place was originally called One Tree Hill, because there was only one tree, whose stump you have seen on the top of the hill where the

Dropmore, from the Gardens.

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house now stands. The avenue consists of Cedars atlantica, planted twenty-five feet apart and fifty feet between the rows. Cedrus atlantica and the Indian Cedar Deodara are represented by fine specimens."

"It is impossible for me to attempt to exhaust this feature, and I suppose that next only in interest is your remarkable display of hardy Azaleas and Rhododendrons?"

"We have Azaleas literally in thousands. The Azalea walk, running into the wood, is about a quarter of a mile in length, and has Azaleas on either side. Rhododendrons, chiefly ponticums, grow in wild profusion in the woods, but there are a number of named varieties in the gardens proper."

"The soil, I conclude, suits them particularly well?"

"Yes, there could be no better soil for Rhododendrons. It is a light, sandy loam, overlying gravel."

"Your flower garden has lately been altered?"

"It has; but the old design of gravel paths and Box edging is retained. The chief change is that the beds have been made somewhat larger. The largest bed is used for sub-tropical plants, such as Cannas and Abutilon Thompsonii. Then, we make a great feature of standard Fuchsias, bedded. I suppose we bed out about three thousand. Tuberous Begonias also help to make up what is a grand sight, as seen from the Queen's tea-room in summer."

"Queen Victoria used to come here?"

"Yes, she came on several occasions, and always took tea in the room which looks on to the flower garden."

"Are Geraniums largely grown?"

"We have very few of the Zonals. The Ivy-leaved varieties are used for the vases. Standard Heliotropes are a feature. There is a carpet underneath, and the plants themselves stand about three feet high. Nicotiana sylvestris, which has a drooping flower, of bell shape, beautifully scented at night, is another plant which flourishes here."

"I need scarcely ask, after a glance round, whether you go in largely for Roses?"

"Mrs. Fortescue is very fond of Roses, and we grow all the best varieties."

"Will you give me the names of twelve of your garden Roses?"

"With pleasure. Madame Pernet Ducher, Papa Gontier, Madame Abel Chatenay, Viscountess Folkestone, Georges Nabonnand, Marquise de Salisbury, Homere, Madame Falcot, Madame Lambard, Anna Olivier, Amazone, and Isabella Sprunt."

"And climbing Roses?"

"Among the best are Aimée Vibert, Climbing Kaiserin Augusta Victoria, Mrs. W. J. Grant, Crimson Rambler, Queen Alexandra, L'Ideal, Maréchal Niel, Reine Olga de Wurtemberg, Reve d'Or, William Allen Richardson, Polyantha simplex (most beautiful), Ards Rover, Dawn (lovely pink colour), and Madame Plantier. Of China Roses, we grow the common Irene Watts, Laurette Messimy, Mrs. Bosanquet, Cramoisie superieure; and, of Damask, the Old Damask, Tuscany, York and Lancaster, and Red Damask. These are grown on pillars and arches."

"As to good Teas for exhibition?"

"Here are twelve varieties—Agnes G. Sherman, Bridesmaid, Catherine Mermet, Cleopatra, Comtesse de Nadaillac, Innocente Pirola, Madame Cusin, Marie van Houtte, Mrs. Edward Mawley, Souvenir d'Elise Vardon, Muriel Grahame, and Medea. To these I must add Maman Cochet, and its white sport."

"What about Hybrid Teas for exhibition? I should like another dozen."

"The best, I think, are Bessie Brown, Caroline Testout, Duchess of Portland, Kaiserin Augusta Victoria, Killarney, Marquise Litta, Mrs. W. J. Grant, Papa Lambert, Mildred Grant, Countess of Caledon, La France, and Souvenir du President Carnot. Of Hybrid Perpetuals, the following is a useful selection:—A. K. Williams, Chas. Lefebvre, Frau Karl Druschki, Gustave Piganeau, Helen Keller, Suzanne Marie Rodocanachi, Horace Vernet, Madame Gabriel Luizet, Marie Baumann, Mrs. J. Laing, Mrs. Sharman Crawford, and Ulrich Brunner."

"Your Rose cultivation is on such a large scale that I should welcome any suggestions on the vital question of pruning."

"With regard to garden Roses, all weak shoots and intercrossing branches should be first cut away; then the remaining shoots should be shortened a little to a sound bud. Tea Roses for exhibition should be cut back to two or three eyes, leaving only the strongest, well-ripened wood, whether grown as dwarf or half standards. The half-standard is, no doubt, the best stock for the Teas. The same kind of pruning is required for Hybrid Perpetuals and Hybrid Teas."

"How about climbing Roses?"

"Fresh-planted Roses of this kind should be cut back to about three eyes the first year, in order to induce strong growth for flowering the next season. The second year the shoots that have flowered should be cut away, and the strong young shoots secured in their place. This method of pruning should be carried out every year. Maréchal Niel does well treated in this manner."

"You go in extensively for herbaceous plants?"

"Yes, they are grown in quantities, and include Anemone japonica, Aquilegias in variety, Asters (all the best varieties—these are most useful for cutting), Delphiniums, Gentiana, Gypsophila, Helianthus in variety, Heuchera sanguinea, Iris germanica in variety (these do splendidly), Incarvillea Delavayi (one of the best plants of recent introduction, quite hardy here), Lychnis in variety, Pæonies (Moutan and herbaceous varieties), Papaver orientalis in variety, Alstrœmerias in variety, Campanulas, Chrysanthemums, herbaceous Phloxes, Gaillardias, hardy Cyclamen, Dielytras, Eryngiums, Knipho-fias, Montbretias (most useful), Spiræas in variety, Achilleas, Anchusa italica (we have a fine form—last season a white variety appeared amongst the plants), and Chelone barbata (most useful for cut flowers). The demand for cut flowers is very large during the London season."

"Now we come to the houses."

"There are three Vineries. In the early house we grow Black Hamburgh and Madresfield Court; in the Muscat house, Muscat of Alexandra and Madresfield Court; and, in the late house, Lady Downe and Black Alicante. There are two Peach houses, early and late, Strawberries being grown on shelves overhead, namely, Royal Sovereign and James Veitch. The early Peaches are Waterloo, Noblesse, and Barrington; the late, Sea Eagle, Condor, and Barrington. The Nectarines are Rivers' Early, Elruge, Lord Napier, Spencer, and Dryden. The last is a great deal like Pitmaston Orange, of good appearance and fine flavour."

"As to the Palm house, in the centre of three other houses," continued Mr. Page, "the two ends are used chiefly for the purpose of forcing plants for flowering, such as Roses, Azalea mollis, and Hydrangea paniculata. In the summer, Cannas and greenhouse plants are grown in the same house."

"The Carnation house is quite new?"

"Yes, it was built last October, by Messrs. Wrinch and Sons, of Ipswich, is fifty-five feet by sixteen, and there are about fifteen thousand Malmaisons now in the house. The Carnation, even more than the Rose, is Mrs. Fortescue's favourite flower. Nearly all the plants are Lady Nina Balfour, an improvement on the Princess of Wales. It is the best of its colour, and I have cut the bloom six inches across. Next to the Carnation house is a forcing house, with two divisions. Cucumbers and Melons are grown at one end, and the other is reserved for Crotons, Dracænas, Arallas, and other small decorative plants. We grow about a hundred Gardenias."

"Do they bloom well?"

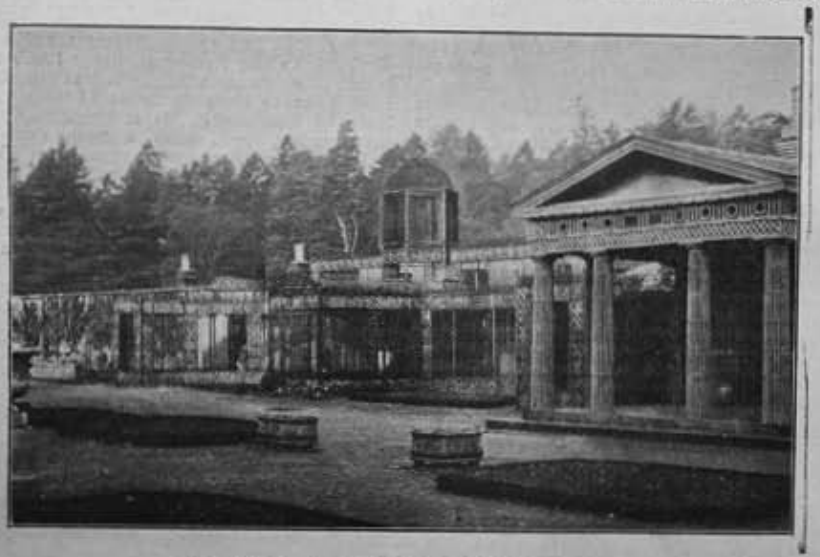
"Very freely. I propagate them every year, never treating them as old plants. Another house is devoted to Figs, and in the warm Orchid house are Cattleya labiata, Mendelii, and Mossiæ, Lælia purpurata and anceps, and a fine Dendrobium. In the cool Orchid house, which I am gradually filling in, are Odontoglossum Pescatorei and crispum, Lutea purpurea, and a few Masdevallias, Cymbidiums, and Cœlogynes."

"What do you grow in the pits, Mr. Page?"

"We go in largely for Violets—De Parme and Marie Louise, doubles; and Princess of Wales and California, singles. The De Parme are exceptionally good for frames. It is a transition from Violets to Potatoes, but in the pits we also force Potatoes, French Beans, Asparagus, and Seakale."

"You have an admirable kitchen garden some little distance away from the pleasure grounds?"

"It is about half a mile from my house, and is four acres in extent. The large stock of hardy fruit includes Apples, grown as dwarfs on the Paradise, and Pears on the Quince. Just outside the kitchen garden walls is an orchard with standard Apples and Pears, embracing all the leading varieties in cultivation."



The Aviary and Arcade at Dropmore.

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"I should like to add some details about your own career."

"I began gardening early in the seventies, at Flixton Hall, Bungay, Suffolk, the seat of the late Lord Waveney. Mr. H. Fisher was head gardener there at the time, and to him I owe a great deal. I remained at Flixton between four and five years."

"Where was your subsequent experience gained?"

"At Cobham Hall, Gravesend; Chalfont Park, Slough; Audley End, Essex; and Cranbourne Court, Windsor, all the situations being obtained through Messrs Veitch, of Chelsea. In the autumn of 1883, I went as gardener to Mr. Southard, of Fern Lodge, Bracknell, where I stayed five years, removing from Fern Lodge to The Highams, Bagshot, the seat of Mr. H. P. Leschallas. Fruit was largely grown at The Highams, also Orchids and stove plants."

"When did you come to Dropmore?"

"After six years' service at The Highams, I went in 1893 to Boconnoc, Mr. Fortescue' Cornish seat. The gardens at Boconnoc are very extensive. New Vineries and Peach houses were built, and the garden was practically remodelled during my stay. In November, 1901, I removed to here to take charge of the gardens, and my ten years' service with Mr. and Mrs. Fortescue have been years of most pleasurable employment. Every facility has been afforded for improving the gardens. This house was built thirteen years ago, and I have a staff of twenty men under me."

"Have you been showing for many years?"

"For about twenty. My first exhibit was at Reading, of Chrysanthemums, when I was at Fern Lodge, Bracknell. There I helped to form the Ascot Chrysanthemum Society. While I was at Bagshot I took a good many prizes at the local shows; a first for Japanese Chrysanthemums in bloom at Plymouth, and a cup for twenty-four distinct blooms of Roses at the Royal Cornwall Show at Wach Bridge. Since I came to Dropmore I have shown at the Royal Horticultural Show at the Crystal Palace, and have been second twice for a collection of Apples, of twelve varieties; also for Peas. In 1902 I was first for a single dish of Thompson's Pears, and second for old Ribston Pippins. I have also won prizes for Roses at Reading and Windsor, and I took second at the show of the National Rose Society (of which I am a member), last year for eighteen Tea varieties, and the silver Banksian medal, at the Drill Hall, for a collection of hardy fruit. If I were asked which flower I preferred, I think I should say 'Roses.'"

ALFRED WILCOX.

## LETTERS FROM A LADY GARDENER.

### 38.—WATER GARDENING.

DEAR KATE,—Yes, there is a special fascination about water gardening, and I am glad that you are making a pond. Even if you had not that spring at hand, you could still grow the loveliest of Water Lilies, Japanese Irises, and many other plants, by sinking a few half-casks in the base of that grass bank of yours, and surrounding them with rough pieces of rock, and I feel sure you will be delighted with the tiny ponds and miniature bogs thus created. The present is the very best time in the year to start these arrangements, and M. Marliac's lovely Lilies, in many shades of pink, carmine, crimson, yellow, and white, have now become so much more reasonable in price that they are within the reach of all.

First, you should have a paraffin cask cut in half; and these tubs should then be charred by burning shavings in them until the inside is black, and all the paraffin cleared away, when a little sand or dry soil will put the fire out easily. But be sure that the charring is thoroughly done, for it is horrid to find paraffin floating on the top of the water just when your plants have settled themselves, and the effect is so bad for all plant life that there is nothing to be done, in that case, but turn out the whole thing, and char the tub again, which is an exasperating experience, I can tell you, for I have gone through it, some years ago. The plants should be unpacked directly they arrive, and placed in a pan of water, for the air soon dries them up; they should then be planted, either in an old open basket, or in the soil with which the tub should be filled to the depth of eight or more inches; and it is a good plan to cover the soil (which should be good, ordinary kitchen-garden stuff, without new manure) with a layer of sand or shingle from the sea-shore. But this should first have all the sea-salt washed away from it, as this does not suit Water Lilies.

We fill up the tubs with water through a fine-rosed can, as this stirs up the mud much less than when it is recklessly poured in; but whatever care one takes, the water is sure to look the reverse of clear for a few days. However, there is a most useful little creature which will clear the water, and keep it quite pure, if put into a tub, and this is the common newt, or eft, as they call them about here. Two or three of these voracious little things will eat everything they can get in the way of worms or insects, and they purify the water much better than gold fish, or even the tadpoles, though they are useful, too, and would be more so if they did not all hop away directly they succeed in turning into frogs. The position of the tubs should be a very sunny one, and we find it an advantage to have a movable stone to hide the cork which fills the bung-hole near the bottom of the tub, so as to be able to let out the water easily when necessary. The slope of the ground (at the base of a bank) favours this cork arrangement, and it is specially needed for the bogs of which I told you last year (August 30, 1902) that it is best for these to have the cork taken out in autumn, and not put in again until the end of March in spring, as otherwise the winter rains would overfill the bogs. We have two grand new bogs, each full of the most splendid Japanese Irises (Kæmpferi); they have lately been top-dressed with a little cow-manure, having been planted last autumn, and the Irises are now in full growth. Then there is another, filled with Arum Lilies, flowering Fern (Osmundas), and many other bog plants, edged with the long golden trails of Creeping Jenny (Lysimachia nummularia), and the dark bronze lace of Mother o' Thousands (Saxifraga sarmentosa), which covers the whole thing in front, for both the plants like plenty of moisture. Sundew, Buck-Bean, and some Terrestrial Orchids (such as Cypripedium spectabile (from Canada, grow here, too, adding to the interest of the water-gardens; and, besides the beautiful Water Lilies, we grow one tub full of Aponogeton distachyon, the Cape Pond-flower, which M. Marliac has succeeded in improving so much that his hybrida-ponogeton produces flowers twice the size of the typical plant. One of the loveliest of the Lilies is Aurora, which begins by being pale blush and pale primrose, and ends, four days later, in a carmine glow. Another great beauty is Arc-en-ciel, with richly-tinted leaves, splashed with red, yellow, and bronze, and white flowers, contrasting most charmingly with the tints of the foliage. The Nymphæa sulphurea grandiflora is pale yellow in the centre, and has orange outer petals?, being very double and handsome, and Gloriosa is one of the best in deep crimson. All these flowers only expand their blossoms for about five hours daily, from eleven till four, when they shut up, and go to sleep, but every day, for the four or five days they open, they grow larger and richer in colour, so that it is quite an excitement to see what they are doing every day, about noon, and nothing can exceed their loveliness. They are perfectly hardy, M. Marliac having been fortunate enough in hybridising the Siberian and North American Nymphæas, with those of tropical Asia, to obtain the constitution of the hardy parent, and the rich tinting of the other.

A WATER GARDEN.

Your small pond can contain not only a selection of these Lilies, but also other plants, such as Aponogeton, Arum Lilies, etc.; but it is not desirable to put in any very large or strong-growing things (such as Bulrushes), for these will quickly take up all the room, and crowd out the delicate little Water Lilies.

Then, if I were you, I should plant Japanese Irises on the margin of the pond, and put in plants of Spiræas in variety, both the creamy Spiræa aruncus, and the rose-pink S. palmata; also hardy Azaleas (mollis, and the Ghent hybrids), which are extremely beautiful, and enjoy a damp spot.

You can also plant Rhododendrons behind the smaller things, especially the early-flowering

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# FAMOUS GARDENS :: IN WAR TIME. ::

## HOW THEY ARE BEING MAINTAINED WITH REDUCED STAFFS.

***XVI.—Interview with Mr. Charles Page, at Dropmore, near Taplow, Bucks.***

"TO see Dropmore at its best, you should come in May, when the Rhododendrons and Azaleas are in full bloom," said Mr. Charles Page, the head gardener, when I visited him towards the end of August. For Rhododendrons and Conifers are the glory of Dropmore, and a finer collection is not to be found anywhere in this country, perhaps not in Europe. But the beauty of the place is permanent, and on this day in late summer it offered innumerable attractions.

The estate, which is the property of Mr. J. B. Fortescue, is about six hundred and seventy acres in extent, and is thickly planted with trees; the pleasure grounds occupy twenty acres; the kitchen garden four acres. The house was built about a hundred and twenty years ago by Lord Grenville, head, in 1806, of the "All the Talents" Ministry, and it was under his care that all the trees were planted and the grounds laid out. The visitor does well to remember this fact, for, by their appearance, it might be inferred that the trees had been established for a far longer time. But they have hitherto received attention, and everything has been done to promote their development.

"Until the war, the trees had been carefully thinned each year," said Mr. Page; "but now we are not able to do the work, as we have no labour to spare."

"To maintain the place at its best no doubt calls for a large staff?" I suggested.

"We used to have twenty-two men and several boys; now we have only nine men and a few boys. There used to be three men and a boy in the kitchen garden; now there are one man and two boys. In the houses there were four men and a foreman; these are replaced by two men, an ex-soldier (wounded at Mons), and an ex-footman. Another ex-soldier is all we have for the flower borders. The gravel walks, all told, measure about six miles in length, and used to be kept clean and tidy; now, as you see, they are getting covered with weeds, for we can only go over them once a year. Then there are between two and three miles of mown walks, which do not receive the attention they should. Nor do the lawns, but we manage to keep a man with a horse-mower going half his time on them."

This explanation Mr. Page gave me as we made our way towards the kitchen garden, which he suggested we should visit first, as it is now the most important part. It is about half a mile distant from the house, and lies in a hollow.

"The soil here is a heavy clay, and some of it was used to make the bricks for the garden walls. The hole the clay was taken from is outside the walls."

"What is the soil in the other parts of the grounds?"

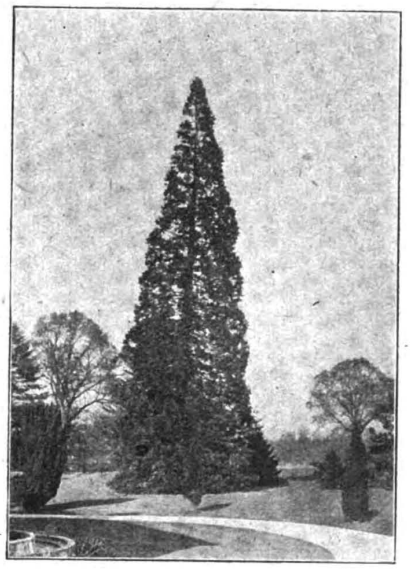
"It is a thin loam over sand and chalk. We are on a spur of the Chilterns, and about three hundred feet above sea level."

"Apples are a strong feature with you," I remarked, as we passed many rows of trees heavily laden.

### USEFUL OLD APPLES.

"We always get good crops here, but this year they are exceptionally fine," said Mr. Page. "We have all the leading varieties, and some old ones which are not often seen, but which are well worth growing. For instance, this is Tyler's Kernel, a good old sort, very useful for cooking; and here is another little known Apple, St. Edmund's Pippin, a golden russet of delicious flavour for dessert. Another excellent sort is Chelmsford Wonder, a cooking variety that keeps till March and April."

There is a large area devoted to fruit outside the walls, and here a number of trees of each variety are planted in rows, with vegetables between them. Peasgood's Nonsuch had so heavy a load of beautifully coloured fruit that it was necessary to tie up the branches; James Grieve was similar; Loddington was another



A HANDSOME SEQUOIA (WELLINGTONIA).

loaded down; and Christmas Pearmain was a picture, with highly coloured fruits—some trees carrying as much as three bushels. Of Charles Ross Mr. Page said:

"This comes a wonderful colour here, and is a splendid fruit, which can be used both for kitchen and dessert. It should be classified under both heads, like Blenheim Orange, but the Royal Horticultural Society regards it only as a dessert variety. Cox's Orange Pippin is especially well coloured this season; while Ben's Red and Wealthy, always good, are richer than ever. A lovely little Apple for dessert—a new variety—is St. Everard, a cross between Cox's Orange and Margil; and another new variety, the Rev. W. Wilks, is one of the best for exhibition. It is a very pale green, with a faint touch of colour in a good season. Of course, mention must be made of Newton Wonder, a good cooker and a long keeper, lasting till Apples come again."

### GOOD NEW PEARS.

Pears also are grown in quantity, as standards in the open, though many are on the walls, the west wall being devoted entirely to them.

"Here is a new Pear which is going to be a good thing, Le Brun," said Mr. Page. "It is of excellent flavour, and is in season in October. The fruit is conical in shape, and of pale yellow skin, and it is a prolific bearer. Another new Pear that I can recommend is Beurré de Naghin, which is very shapely, and comes in in January. We have picked all Williams' Bon Chrêtien, which are ripened in the fruit room. They ripen there, and are just as good as if left on the tree. Beurré Superfin is a great favourite here; and another that is much liked is Comte de Lamy, which is small, but good. It is ready in October, and is one of the best in its season. We have a lot of Louise Bonne of Jersey, Triomphe de Vienne, Le Lectier, Marguerite Marillat, Conference, and, of course, Doyenné du Comice."

Outside the walls were rows of Potato Great Scot waiting to be lifted—the haulm cut off, as disease had appeared; while further off a two-acre field had a promising lot of Up-to-Dates. A plantation of winter greens—Sutton's Hardy and Purple-sprouting Broccoli, Kale, etc.—occupying a space ninety yards by five, caught the eye. Then, returning to the enclosure, we first looked at the Peaches on the walls, some ripening, others just commencing to show colour. Dymond, Stirling Castle, Barrington, Golden Eagle, and Early Silver were among the best, the last-named a fruit of medium size and delicious flavour, ripening at the end of August. The Nectarines are Pine Apple and Humboldt—both very good, in Mr. Page's opinion, outside—and the uncommon White Nectarine, a very pale yellow, but of extra good flavour, and a fine cropper in favourable seasons.

Although lack of labour was evident from the condition of parts of the garden, where space was waiting to be filled, or plants were ready for lifting, there were many signs that every effort is made to cope with the food problem. Two rows, forty yards long, of Runner Beans attracted my notice, and Mr. Page said:

"The variety is Sutton's Prizewinner, which has borne wonderful crops this season."

"And these four rows of Peas?"

"They are Carter's Dreadnought and Autocrat. There are two other rows of Dreadnought coming on beyond these, and they will last till frost arrives. Altogether, I sow twenty quarts of Peas. Here is a good bed of Spinach Beet, the only sort grown now; it is so good that we have given up all the ordinary forms of Spinach."

Then, having noticed a bed of Strawberries, just planted—runners are very scarce this season, so Mr. Page informed me—and a bed now filled with Broccoli, from which Strawberries had been taken off, we made our way from the kitchen garden towards the pleasure grounds.

"Dropmore has been considerably altered in recent years," explained my guide. "Formerly we had Dutch and Italian gardens, with beds in geometrical pattern edged with dwarf Box; but these have been cleared away, and are now grassed down. The Lily pond used to be a sunk lawn, but it was changed rather more than three years ago. The Bamboos are growing rampantly for want of attention, and most of the plants around the pond are the same."

### WEEPING STANDARDS OF HONEYSUCKLE.

"You have a thriving hedge of Roses," I remarked

"Yes; it has done remarkably well this season. The variety is American Pillar, and it is very beautiful when in full bloom. The hedge was planted two years ago. Here is something you do not often see—Honeysuckle trained as standards, after the fashion of weeping Roses. It is the Old Red Dutch variety, and is very effective."

"When was this pergola made?" I asked, as we came to the pavilion overlooking the flower garden, where Queen Victoria was wont to take tea whenever she visited Dropmore. The pergola runs along the side of the house.

"It was built five years ago. On the wall at the back we used to have Peaches. The plants are all new species and varieties of Chinese Vines, and the leaves vary greatly, not only in size but in colour. They look very beautiful when they assume their autumn tints."

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"You have Beets in some of the beds facing the house?" I asked.

"All these beds have had vegetables. Where you see the Beets we used to plant three thousand Fuchsias; and the beds further on are full of Potatoes which are waiting to be dug. Each bed used to take a thousand plants, so you see we have saved considerable labour."

"So that your only bedding now consists of Antirrhinums and Pentstemons?"

"That is so, save for the Salvia patens to give a touch of blue. We are saving some of the bedding plants for stock. A Fuchsia that is greatly admired is Gottingen, a rich coral-pink, and with bronzy leaves covered with down. It is especially good for vases."

Passing a rockery paved with old stones (the work was done by the staff six years ago), with aromatic plants in the spaces, and a small Lily pond, and noting more standard Honeysuckles, we came out on to the principal lawn, dotted with Conifers planted by different members of the Royal Family, and other notabilities.

### CONIFERS WITH A HISTORY.

"The grass here is not mown, as the ground is full of bulbs," explained Mr. Page, "and in spring is very charming. All the trees here have a little history attached to them. One of them was planted by the late King Edward, who was a frequent visitor, and greatly admired the grounds. I remember him driving over from Windsor unexpectedly one Sunday in 1905, when there was none of the family to receive him. Fortunately, Mrs. Fortescue and her cousin motored down from town half-an-hour later, and the King, before he left, planted this Picea nobilis. It was only a tiny tree then, but is now twenty-five feet high. Further on is a Japanese Spruce Fir, Abies firma, which was planted by Prince Edward in 1911. The tree is supposed to be not quite hardy, but it survived last winter. Here is a Japanese tree, Tsuga japonica, of which there are only three in the country. This was planted by Queen Mary in April, 1911. Our present King, when Prince of Wales, planted a Pinus parviflora in 1907, and in 1911 a Pinus sabiniana, which is notable for the size of its cones."

Keeping right on, we left this lawn, with its interesting memories, behind us, and proceeded towards the Rhododendron plantation. But before reaching this we paused on the crest of a small hill to admire the glorious views presented before us. In the foreground lay a beautiful valley, broken here and there by a tiny stream, or a clump of trees, with cattle grazing peacefully in the meadows; while looking across to the heights in the distance, Windsor, Staines, Egham, and Chertsey were discernible. Then, turning our back on this scene, we entered the wood, the winding path banked on either side with huge bushes of Rhododendron ponticum, looking delightfully fresh and cool on this warm day.

"All your Rhododendrons are, of course, hardy forms?"

"We have some Himalayan species in this glade that are supposed not to be hardy, but they are protected from the wind by this belt of tall trees behind them, and we have not lost any of them. Falconeri is very fine, with yellowish flowers; campylocarpum is yellow; Thomsonii, rich red; and arboreum album and rubrum are white and crimson. I have also a seedling of my own raising, bigger than Thomsonii, and between that and Pink Pearl. Everyone thought it was not hardy, but it stood last winter's frost and took no harm."

"The Rhododendrons appear to seed themselves freely, and are coming up all over the place," I remarked.

"They will have to be pulled up as soon as labour can be spared. We keep the bushes cut, and go over the paths twice a year, but have not been able to do so yet this season."

Crossing the glade, we passed a bush of Andromeda floribunda, thirty feet through, and came to a lake of several acres in extent, with a fine collection of Azaleas and choice moisture-loving plants on its banks. Many of the Azaleas are twelve feet high, and of corresponding circumference, and the colours, Mr. Page told me, embrace all shades of pink, red, cream, and orange. In their semi-wild setting, surrounded by Beech woods, they must be a sight worth travelling far to see when in bloom in spring. The Beech woods themselves—there are a few Conifers intermingled—have a dense undergrowth of Rhododendrons, self-sown. Here we rested for a while, on a stone summer seat which was once part of old London Bridge.

The Cedar avenue was the next point we made for, Mr. Page indicating some of the more notable specimens as we passed.

### RARE TREES.

"This," he said, "is the Californian Redwood, Sequoia sempervirens. It is a hundred feet high. And here is a very rare tree, Cryptomeria lobbii, the Japanese Cedar. There are very few of them about, and this is reputed the finest in the country."

I stopped to admire this noble specimen, which, pyramidal in shape, rises to a height of about seventy-five feet, and is feathered right from the ground. Then passing on, my attention was called to a fine Deciduous Cypress, Taxodium distichum.

"This," said Mr. Page, "is a glorious sight in autumn, when the foliage colours up to gold. The tree delights in moisture, and grows well in boggy places. Now I want to show you a Deodar Cedar, which is the first tree planted by Philip Frost, who was the second gardener at Dropmore, and was here for sixty years. In the hundred and seventeen years since Lord Grenville had the grounds laid out, there have been only four head gardeners, including myself, and I have held the post for sixteen years."

This is a magnificent Cedar; and not far off is another interesting tree—Abies Douglasii, measuring some eighty feet through, closely feathered, and with branches touching the ground. It was a cutting taken from the first plant raised from seed sent home from North America by Douglas. Pinus Lambertiana, the Sugar Pine, with cones eighteen inches long, is another rare tree, and close by is a male tree of Araucaria imbricata, sixty feet high.

### THE CEDAR AVENUE.

And now we emerged on the famous Cedar avenue, a quarter of a mile long and fifty feet wide, with the trees planted twenty-five feet apart. But the great gale of March, 1916, played havoc here, and no fewer than fifty-seven of the giants were blown down, seriously damaging many others in their fall.

"The avenue is, of course, spoilt," said Mr. Page; "and as labour is so scarce nothing can yet be done to repair the damage. The injured trees want attention, but we cannot give it; and we have not been able to clear away all that fell."

There were many other fine trees in this part of the grounds, to which I should like to refer, but must content myself with mentioning two—the famous Douglas Spruce, Abies Douglasii, one hundred and twenty feet high, which is one of the original plants (there were but three) raised from Douglas's seed, and was sent by the Royal Horticultural Society to Lord Grenville in 1830; and the Himalayan Hemlock, Abies brunoniana, said not to be quite hardy, but thriving here.

We had now worked our way round towards the Rose garden and herbaceous borders. There are many beds of Roses, each bed planted with blocks of one colour, such as pink, yellow, crimson, cream, and so on, while in front of these, on either side of the path, are six beds of Salvia patens, with a groundwork of the white Kœniga maritima, all framed with neatly-kept grass edgings. In this section of the garden is a long border of Monthly Roses, blooming profusely, and there had been also a hedge of Lavender, but this was killed by last winter's frost, and had not been replaced. The effect in summer is heightened by a background of Wistarias, whose pale mauve flowers are a splendid foil to the brighter colour of the Roses.

### POTATOES REPLACE SWEET PEAS.

"We used to have Sweet Peas in quantity here," said Mr. Page; "but this year we planted the space with Potatoes, which will be lifted shortly. The haulm is already cut."

"What varieties of Potatoes did you grow?"

"There were three—Great Scot, Royalty, and King Edward. Royalty is a maincrop, with very round tubers, and has excellent table qualities."

"You also have a good breadth of Asparagus here."

"Yes; we sow a crop every year, and take up another for forcing. We cut from the three-year-old plants."

"And how do you maintain the herbaceous borders in such splendid condition?"

"We lift all herbaceous plants every year, except Pæonies and such like, and change their position. We do the same with the Roses, of which I bud five hundred every year. I have shown Roses for more than fifteen years, and have been first three times in the trophy for Teas."

"You have here, too, a great batch of Chrysanthemums standing out."

"Altogether there are a thousand plants, including four hundred grown for big blooms to cut for large vases for the house. We also grow a thousand Perpetual-flowering Carnations, which are at present in frames, but will shortly be taken inside, into the two large greenhouses devoted to them. The Chrysanthemums will go into the early Peach range."

There are seven ranges of houses, and one long run of Peach houses, which we next went through. In the Vineries only early Grapes are grown, the late ones being grown at Mr. Fortescue's Cornish seat, Boconnoc. Black Hamburgh was nearly over, although there were still a few bunches hanging, some fully four pounds in weight; and the three-year-old Vines of Muscat of Alexandria were carrying many fine bunches.

### HOW TO GROW AMARYLLIS.

Amaryllis is a strong feature in one of the houses, and Mr. Page explained his method of growing them:

"I raise a hundred and fifty seedlings yearly, and after flowering them, weed out all that I do not consider worth saving. I flower them in under two years, and keep them growing all the time, not drying them off. The Amaryllis is a flower that is greatly liked here, and is useful both for cutting and as a pot plant. I do not think it is grown as much as it deserves to be. The old plants are rested after flowering, and are then started in an ordinary house, without bottom heat. The large bulbs are kept in the same pots for four or five years, being merely top-dressed annually. They do not like root disturbance; and another thing they resent is being potted in too large a pot. They are really very easy to manage."

In the cultivation of Orchids Mr. Page excels, and in one house is a batch of between two hundred and three hundred Cattleyas and Odontoglossums, to which he gives his personal attention. They are grown for cut flowers. In another house, to use his own words, "Vanda cœrulea grows like a weed, although many people find it difficult. Perhaps it is because there is a tank just under the staging, and this ensures a constantly moist atmosphere. Vanda teres wants growing in full sun, and then it does well. It is in one of the other houses."

Passing through the houses, I saw Cœlogynes making splendid growth, good batches of Cypripediums and Lycastes, and many more Odontoglossums. Cyclamens were coming on, Arums just starting, and Streptocarpus—a handsome strain of his own selecting—going off. Many other interesting items were also to be seen, but lack of space precludes my mentioning them.

Added to his multifarious duties in connection with the gardens, Mr. Page is also a special constable, devoting many hours of his leisure to this task, so that it will be seen that his time is fully occupied.

W. J. CHITTENDEN.

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March 18, 1911.
469.
GARDEN LIFE.
R FRmOUS GARDEN IN R LONDON
SUAEUHB.
Interview with Mr. H. A. Page, at Belsize Court Gardens, Hampstead.
THAT splendid fruit can be grown in a London suburb, under many adverse conditions, is shown in a striking manner by the results obtained in the gardens at Belsize Court, Hampstead. Modern developments in Hampstead have still left untouched the fine old mansion belonging to Mr. J. S. Bergheim, with its extensive ranges of plant and fruit houses-, its old-fashioned pleasure ground, and its hardy fruit garden. It was to the last of these that I first turned my attention on the occasion of a visit in the winter. Mr. Page, the gardener, had warned me that there was not much to see, but the fruit trees alone were worth the journey to the heights of Hampstead
" When was this garden planted?" I enquired, as we inspected some of the trees.
" Between fourteen and fifteen years ago. It has a slight slope to the south, but the soil is very heavy-London clay. Yet we never fail to get a good crop of Apples. If some varieties fail, others succeed."
It would be very interesting to know the names of varieties which flourish in such close proximity to a vast city."
" Lord Derby has not failed to yield a crop for seven years; and Cox's Orange Pippin, Lord Suffield, Lady Henniker, Loddington Seedling, as bushes, and Ribston Pippin as espaliers, are among the best. Last year we picked half a bushel of fruit from a Cox's Orange Pippin planted in 1906."
A Remedy for Moss.
" I see you have just been exposing the base of the trees."
" We do that regularly after the first frost. Another feature of the treatment is that we dress the trees overhead in alternate seasons with soot and lime, and caustic soda wash."
" And is that the reason they are so free from moss?"
" Yes, that is why we have not a vestige of moss on one of the trees. Moss is a deadly enemy, because it cramps the bark, and sets up all manner of mildew."
" There must be nearly a hundred Apple trees in the garden."
" From eighty to a hundred, with dessert Gooseberries between them, which do very well indeed. The principal varieties are Langley Grange, Warrington, Whinham's Industry, and Golden Lion. The Plums, which form one of the front rows, are Victoria, Jefferson, and The Swan, a very nice variety, of reddish colour."
" Pears as cordons on the walls seem to flourish."
" At any rate, they hide every bit of wall. That is one advantage of cordons, in which I am a strong believer. We want to get the best possible fruit, and, with that object, I have a fair number of varieties. In addition to the cordons, there are four trees of Doyenne du Comice. They are not so fine in colour as fruit grown ten miles out of town, but the flavour is quite as good. We are just planting four more. The cordons include Triomphe de Vienne, Louise Bonne of Jersey, Marguerite Marillat, Belsize Court, Hampstead, N.W.
Charles Ernest, Conference, Beurre d'Amanlis, Madame Treyve, Pitmaston Duchess, Beurre Bachelier, Fondante d'Autumne, and Marie Louise. The border is cropped with Strawberries to three feet off the Pear wall."
" Royal Sovereign?"
" Principally. I keep the plants for two years only, making a new bed every year. About three hundred Royal Sovereign are also forced, and we find that the early batch does better in 'forty-eights' than in larger pots."
" This garden is entirely devoted to fruit?"
" Yes, we do not grow vegetables, but a great deal of fruit is grown indoors. Here is a cold orchard house, which, in fact, we use for anything late, plunging the pot trees in ashes, and keeping them in the house during the winter. This applies to Roses, as well as Peaches and Tomatoes. Not only is there no heat in the house, but the door is always open. The varieties of pot Peaches are Sea Eagle, Nectarine Peach, Osprey, and Nectarine Victoria."
" How long does your Peach season last?"
" From May until the second week in October. We will take the early Peach house next, which has been closed about ten days. The varieties are Hale's Early and Duke of York, and Nectarine Cardinal. In this house we get splendid crops every year. Last year a tree of Cardinal, brought in during November, 1909, was started in January, and bore four dozen fruit the first season."
" Do you not use fire heat?" I asked, as we entered the late Peach house.
" Only when the Peaches are in bloom, or we want to ripen them in the autumn. The varieties are Bellegarde and Barrington, and Nectarines Pineapple and Stanwick Elruge."
" How many houses are there altogether?"
" Nineteen, large and small. In the early Vinery we start Figs, Pingo de Mel and St. John's, the others coming along naturally; and in the early Melon house, which we are now entering, bulbs are forced, chiefly Jonquils, Trumpet major, and Tulips. The Melons are Hero of Lockinge, Sutton's Superlative, and Sutton's Jubilee. Melons are followed by late Tomatoes, brought in about August, in 8-in. pots. These last until Christmas, and the varieties are Carters' Sunrise and Duke of York.
" The next," continued Mr. Page, " is a little cool house for pot Cherries and Pears, plunged in ashes. The best Cherries for this purpose are Early Rivers, Black Tartarian, Governor Wood, and Frogmore Early Bigarreau, which never fails. When the fruit is ripe, we take the pots into the mansion, and the guests clip it off the trees on the dinner table."
" Do you take in pots of other fruit?"
" Yes, Peaches and Apples. Gascoigne's Scarlet is an Apple specially grown for the purpose. Strawberries are also placed on the dinner-table in pots. Now we come to the orchard house. The Peaches and Nectarines grown here in pots follow those in the early house. The varieties of the former are Hale's Early, Peregrine—which we like extremely, because of its colour and flavour—Duchess of York, Crimson Galande, Nectarine Peach, Princess of Wales, and The Rivers; and of the latter, Lord Napier, Early Rivers, Pineapple, Humboldt, and Victoria."
" What are the varieties in your early Vinery?"
" Black Hamburgh, Madresfield Court, Buckland's Sweetwater, Foster's Seedling. In the late Vinery are Muscat of Alexandria, Gros Colmar, Lady Downe, Mrs. Pince, and Black Alicante. These Vines have been planted for years, and all the borders are mixed. The Alicante, of which you see some in the fruit-room, remain here until the Grapes in the early house are ripe. Last year, on the day I cut my first bunch of Hamburgh, I put my last-



# A FAMOUS GARDEN IN A LONDON SUBURB.

## Interview with Mr. H. A. Page, at Belsize Court Gardens, Hampstead.

THAT splendid fruit can be grown in a London suburb, under many adverse conditions, is shown in a striking manner by the results obtained in the gardens at Belsize Court, Hampstead. Modern developments in Hampstead have still left untouched the fine old mansion belonging to Mr. J. S. Bergheim, with its extensive ranges of plant and fruit houses, its old-fashioned pleasure ground, and its hardy fruit garden. It was to the last of these that I first turned my attention on the occasion of a visit in the winter. Mr. Page, the gardener, had warned me that there was not much to see, but the fruit trees alone were worth the journey to the heights of Hampstead

" When was this garden planted?" I enquired, as we inspected some of the trees.

" Between fourteen and fifteen years ago. It has a slight slope to the south, but the soil is very heavy—London clay. Yet we never fail to get a good crop of Apples. If some varieties fail, others succeed."

It would be very interesting to know the names of varieties which flourish in such close proximity to a vast city."

" Lord Derby has not failed to yield a crop for seven years; and Cox's Orange Pippin, Lord Suffield, Lady Henniker, Loddington Seedling, as bushes, and Ribston Pippin as espaliers, are among the best. Last year we picked half a bushel of fruit from a Cox's Orange Pippin planted in 1906."

### A Remedy for Moss.

" I see you have just been exposing the base of the trees."

" We do that regularly after the first frost. Another feature of the treatment is that we dress the trees overhead in alternate seasons with soot and lime, and caustic soda wash."

" And is that the reason they are so free from moss?"

" Yes, that is why we have not a vestige of moss on one of the trees. Moss is a deadly enemy, because it cramps the bark, and sets up all manner of mildew."

" There must be nearly a hundred Apple trees in the garden."

" From eighty to a hundred, with dessert Gooseberries between them, which do very well indeed. The principal varieties are Langley Grange, Warrington, Whinham's Industry, and Golden Lion. The Plums, which form one of the front rows, are Victoria, Jefferson, and The Swan, a very nice variety, of reddish colour."

" Pears as cordons on the walls seem to flourish."

" At any rate, they hide every bit of wall. That is one advantage of cordons, in which I am a strong believer. We want to get the best possible fruit, and, with that object, I have a fair number of varieties. In addition to the cordons, there are four trees of Doyenne du Comice. They are not so fine in colour as fruit grown ten miles out of town, but the flavour is quite as good. We are just planting four more. The cordons include Triomphe de Vienne, Louise Bonne of Jersey, Marguerite Marillat, Belsize Court, Hampstead, N.W.

Belsize Court, Hampstead, N.W.

Charles Ernest, Conference, Beurre d'Amanlis, Madame Treyve, Pitmaston Duchess, Beurre Bachelier, Fondante d'Autumne, and Marie Louise. The border is cropped with Strawberries to three feet off the Pear wall."

" Royal Sovereign?"

" Principally. I keep the plants for two years only, making a new bed every year. About three hundred Royal Sovereign are also forced, and we find that the early batch does better in 'forty-eights' than in larger pots."

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bunch of Alicante on the dinner-table. The Apples, of which you observe we still have a stock, will last until February."

### Favourite Chrysanthemums.

"Fruit, then, is one of your great features. What are the others?"

"Chrysanthemums and Orchids. We keep up Chrysanthemums until Christmas. About three hundred bush plants are grown. Singles predominate; we have given up the mops. The best varieties of the Singles are James Travers, Felicite (white and pink), Golden Gem, Sir George Bullough, Ladysmith, M. E. Roberts, Merstham Jewel, and Mrs. Caterer (Anemone — very useful for cutting). Kathleen Thompson is a good early Japanese variety; also Rayonette, and Caprice de Printemps. The other favourite varieties include Thompson, Madame Oberthur, Niveus (late white), Golden Gate, and Lincoln (yellow). But Orchids are much more in evidence than Chrysanthemums. We can start these with a look at Odontoglossums in the cool Orchid house."

### Orchids in Quantity.

"You have a number of varieties?"

"A dozen, including O. crispum, Pescatorei, grande, Harryanum, Rossi majus, and Edouardi. A number of Masdevallias are also grown in this house, and Oncidium macranthum. Here, too, we have a number of insectivorous plants, such as the Dionœa, Sarracenias, Cephalotes, and Pinguicula caudata. Mr. Bergheim is specially interested in all botanical plants. The next house is devoted mainly to Cattleyas, with a few hybrids, and the varieties include Mendelli, Mossiæ, Warneri, Schroderæ, Skinneri, Trianæ, Bowringiana, and Gaskelliana. Then there are Vanda cœrulea, Lælia anceps, the Cradle Orchid, Cypripedium Lowii, Miltonia vexillaria, and Zygopetalum Mackayii. All these plants go into the Court."

### Rare Foliage Plants.

"You have a general assortment of foliage plants in your propagating house?"

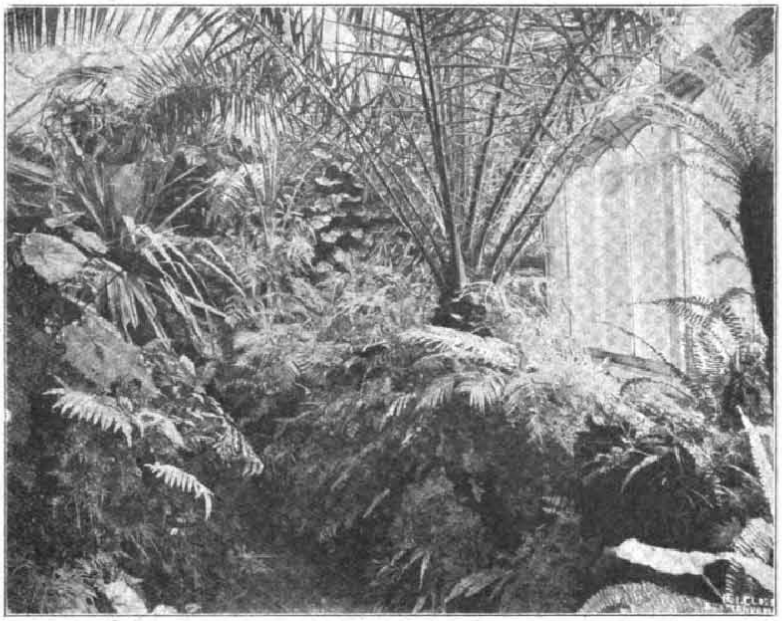
"Yes, and notably Crotons, Nepenthes, Caladiums, and Dracænas. Of the last, Goldieana is one of the best; and I can recommend also, D. Sanderiana and Offeri. Dieffenbachias are grown in variety, and, amongst interesting plants is Ardisia crenulata. Then there is Reidia glaucescens, with its flowers all coming on the end of the leaf."

"Please mention any specially rare plants."

"One of these is perhaps Bryophyllum crenatum, which is propagated either by laying in a saucer of water, or on damp ashes. Another seldom-grown flowering stove plant is Utricularia montana, which is grown in baskets, and has a white flower with a yellow throat, resembling very much in appearance a Phalænopsis Orchid. In the greenhouse, where Cyclamen are just beginning to move, and Cinerarias are coming into bloom, we also grow Primula stellata, and herbaceous Calceolarias, Sutton's Perfection and Cloth of Gold. Then there are a few Tree Carnations, chiefly Britannia, which does better than any other variety."

"Do you grow many varieties of Malmaisons?"

"Horace Hutchinson, Trumpeter, Old Blush, and Princess of Wales. We also treat Hermione, which is a border variety, as a Malmaison, and layer and pot it in the same way. Amongst our Pelargoniums we find Areta, a semi-double, very useful for cutting; and other varieties are Kingston Beauty, Edward Perkins, and Brimsdon Pink. Indica Azaleas do very well here, and the varieties include Deutsche Perle, Professor Wolters, Mr. John Peters, Empress of India, Vesuviana, and Hexe, an exceedingly nice Azalea for an amateur to grow. The Clivias are of no use for table decoration, but placed on the top of a radiator they keep in bloom for a fairly long time."



**Palms and Ferns at Belsize Court, Hampstead.**

### A Notable Intermediate House.

"What is the house we are now entering?"

"An intermediate house. We get very fine plants of Rhododendrons, Java hybrids. They have been here for seven or eight years, and all the year through we cut a flower on one or other of them. The varieties are Diadem, Princess Alexandra, and Aphrodite. On the north side are some lovely fronds of Nephrolepis Ferns, which are used for decorating, and the stage in the centre is devoted to Orchids suitable for the temperature."

"You might name some of the varieties to be grown in an intermediate house."

"Sobralia macrantha, Cymbidium spacelatum, Cymbidium eburneum, C. Lowianum, and C. Fraserianum. Also Dendrobium Wardianum, and Vanda Kimballiana, which are suspended overhead. A piece of Cymbidium eburneum had a dozen spikes of flower at a time."

"There are more Crotons in the stove?"

"Our principal collection of Crotons is in this house, and we limit the size of the pots to six inches. The varieties which suit the purpose include Countess, Warrenii, Evansianus, Reidii, Laingii, and undulatii. Here are also more Dieffenbachias, with Panax and Cyanophyllum magnificum, a very rare plant. Suspended in the centre is a collection of Nepenthes, the varieties being Rafflesiana, Morganæ, Bycalcarata, Menita, and Dicksonii. On the north side are a few Orchids requiring warm treatment, chiefly varieties of Cypripedium and Calanthes."

"Do you use Gardenias for button-holes?"

"Yes, for both ladies and gentlemen. In this house, which is a cooler stove, we also grow Bilbergias, Tillandsias, Anthuriums, and a certain number of Orchids, including the Swan Orchid. Under the stage, Eucharis flowers as well as on it."

"How do you treat it?"

**The Stove House at Belsize Court, Hampstead.**

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"We simply plant it in common earth. That the treatment is successful, you may judge by the fact that we have had one standing in the dining-room for a week with eight spikes on it. The Anthuriums, with their excellent foliage and striking bracts, make noticeable plants. By the way, you may like to know that we obtained a botanical certificate for Angræcum pellucidum, which was imported by Mr. Bergheim from the west coast of Africa. Now, I think we have finished with the houses, except those adjoining the Court."

### The Flower Garden.

Proceeding into the flower garden, Mr. Page observed that herbaceous varieties are planted in clumps, and include Pæonies, Statice, Heleniums, and Michaelmas Daisies; while English, German, and Spanish Irises are also used. As I commented on the appearance of beehives, Mr. Page said,

"Yes, we keep bees, which assist us in our fruit culture inside and out."

"Have you named Lilies in your pond?"

"They are the Marliac hybrids. Near the pond the Bog Bean flourishes, also the Royal Fern, and a few Bamboos. On the undulating hill, which is enriched with a number of trees and shrubs, including Hollies, Prunus Pissardi, and Acers, are Roses as standards, Lady Gay and Dorothy Perkins. In beds we have a few Hybrid Teas, such as Caroline Testout, Killarney, Lady Ashtown, Liberty, and Richmond. We do not go in for spring bedding, except a number of Wallflowers in front of the Court, the varieties used being Sutton's Cloth of Gold and Blood-red. The conservatory is on the first floor, level with the drawing-room, and its contents alter continually, according to changing seasons."

### The Aquatic House and Rockwork Fernery.

"But you have some glass close to the Court?"

"One is the aquatic house, which, as you see, contains a tank and a lake. Here the Banana Cavendishii fruits every year, and here, also, we grow the sugar cane. Other contents of this house include a number of Orchids, such as Vandas tricolor and suavis, Dendrobium and Phalænopsis. You do not often, probably, see the Coffee-plant, and the Kola Nut plant, from which cocaine is obtained. In addition to several of these in pots, we have the plant that produces papyrus. The adjoining house is a rockwork Fernery, with rockwork fixed in the back wall, and pockets for the soil. Also growing on the wall are Ferns and Ficus repens, and other varieties. There are also several fine Tree Ferns."

"The winding paths in the rockwork Fernery suggest endless varieties."

"They are practically endless, the Tree Ferns being especially noticeable. In swinging baskets are Davallias and Asparagus Sprengeri, and most rare of all is a Papyrus, the old Egyptian plant, growing in a tub without a drainage hole. This house was planted about ten years ago; is top-dressed annually, and when the Ferns become weak, they are replaced with stronger ones."

Then, leaving these two beautifully-laid-out Ferneries, we retraced our steps, and passed again through the fruit garden, Mr. Page remarking:—

"Although I told you that we do not grow vegetables, I make a practice, when we are destroying an old Strawberry bed, to plant in succession a crop of Peas or early Cauliflowers. And speaking of Peas, two rows of Sweet Peas are grown in the fruit garden for cutting. They have been on the same spot for four years. The varieties for the next season will be chiefly Etta Dyke, Dorothy Eckford, King Edward VII., Captain of the Blues, Countess Spencer, and some of its seedlings. In order to keep the collection up to date, I add two or three new varieties each year."

"How long have you had charge of these gardens, Mr. Page?"

"Seven years. Before that I was head gardener and bailiff to the late Mrs. Philip Twells, Chaseside House, Enfield, and previously at the White House, New Southgate. Many years ago I was with the late Mr. Peacock, of Sudbury House, Hammersmith, who had a famous collection of Orchids and succulents. I used to exhibit Chrysanthemums and fruit, and hold a certificate of culture from the Continent for blooms of Madame Carnot shown at Ghent in 1895."

ALFRED WILCOX.

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NEXT week's interview will deal with a wonderful seaside garden at Wellington House, Westgate-on-Sea.

## Planting Box Edging.

GOING about, as I do, in gardens large and small, I am struck with the imperfect manner in which edgings of Box are first planted, or replanted. A few hints may be valuable to those who do not know the best method to plant this best of all live edgings to paths.

A properly planted and managed Box edging should remain in such a condition as not to require replanting for fifteen years, or even more. This, of course, depends upon how it is attended to yearly. Some edgings get untidy and overgrown in a few years, owing purely to neglect in keeping them properly cut.

### Preparing the Site.

The preparation of the site is an important item towards success—in fact, if the foundation is not properly laid, the future edging cannot be successful. Whether the patch has a snarp o. an easy ascent to any point, or whether it is dead level, matters not in the planting of the edging. The point is to settle the level of the extreme ends of the path, and arrange for the remainder to come in accordance with the given height at each end. The edging on both sides of the path should be a dead level across the path, the whole of its length. This can be obtained by the aid of a square edge and spirit level on a peg on each side of the path, flush with the top of the soil, which indicates the level of both sides of the path.

With a given level at each end of the path, intermediate pegs should be put in at distances of twenty feet apart, by the aid of three borning rods, or T-squares. From the level pegs between those at each end of the path, the opposite side of the path is levelled across with the square edge and spirit level.

Having obtained the levels of the path throughout the site, next remove the gravel off the surface, so that the soil, taken out in preparing the line for the Box, does not become mixed with it. The sides of the path where the Box is to be planted should be dug up one foot deep, breaking the soil thoroughly, and removing ny stones that would interfere with the cutting out of the necessary trench for the Box. Tread the soil firmly, raking the surface finely.

### Preparing the Plants.

When the site is fully prepared, stretch a line tightly in exactly the place where the Box is to be planted. With a few wire pegs here and there, make the line fast to the soil. Then, with a spade, chop out a perpendicular trench six inches deep. This must be quite upright, and, if properly done, will expedite the planting afterwards.

The next thing to do is to prepare the plants. If old Box is to be again used, it will no doubt have roots a foot or so long. These must be reduced to two inches, pulling the plants into quite small pieces, and cutting off the tops so that a uniform level is obtained with pieces of about four inches in all. Uniformity in the size of the plants is the all-important point. If there are pieces of Box without roots, do not discard them, as they will produce roots and grow equally well, but do not plant such pieces together—mix them with the rooted portions.

### How to Plant.

Planting will now begin. The operator should kneel on the right knee, the left foot being employed to make the soil firm as the planting proceeds. With the right hand, place the plants in position quite upright in the trench. Let each piece touch its neighbour, thus making a thin, even line. With the back of the left hand, hold the pieces in position, and with the right hand draw the soil on to the roots, this having been made quite fine and free from stones. The left foot follows on in the trench, making the soil firm as the work proceeds.

The trench is then filled in, and trodden quite firm—it cannot be made too firm about the roots. The finished edging should then be not more than two inches high, and an inch wide. Cutting the tops of the Box square before planting will leave an even, straight edging.

If these instructions are carefully carried out, no cutting of the Box will be required until the second year after planting; but when the planting is done irregularly in height and size of the pieces, cutting is needed the same year, if the edging is to be uniform.

The month of March and the early part of April is a good time to plant Box.

E. MOLYNEUX.

## Growing Celery.

FEW crops require more attention than does Celery, if it is to be well grown; and yet it pays for the trouble. To have it early, it is necessary to sow the seed in March—say, about the present time. (I have known Celery to be ready for use in July, but this was done by adopting a good system. The seed was sown in boxes, which were placed on the floor of a Vinery, so that no frost could get at it). From this sowing, plants are obtained to form a continuous supply until the end of November. A further sowing should be made about three weeks later to come in use about the beginning of the year, and onward throughout the spring months.

When the plants have made two rough leaves, they should be pricked out into boxes about two inches apart. When they have become established, they should be taken to a frame and allowed to harden off gradually. As soon as the weather is favourable, and time will permit, they should be planted out in the open.

### Planting-out.

In the meantime, having selected the site, a trench should be dug out one foot deep and four feet wide. Into the trench a good compost of manure is put to a depth of six inches, with about two ounces of common salt to every square yard of the bed. Dig over the manure rather lightly, and tread it down.

The plants should now be cut out into squares, and put into the trench about three inches apart from plant to plant, in rows across the bed. Each row should be about one foot apart. When planted, water them well, and give them plenty throughout the growing season. An occasional dressing of nitrate of soda will prove beneficial.

Should Celery-fly make its appearance, soot dusted among the beds will help to keep it away.

### Blanching.

The plants, when well grown, will require tying up. This should be done with care. Paper collars should be put on them, and tied with raffia. Some old spent manure may be used to pack between the plants, and if they are kept moist, they should blanch well. It is, however, not essential to have manure—anything will do. The secret of blanching Celery well is to exclude light and some of the air. This method I have found successful for growing Celery for market.

G. BARTON.

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at 6 feet from the body, but several large branches have been cut years ago to give room for those remaining.

Romney Marsh land has long been noted for its rich herbage. The soil is very dark, and in some places a good depth, being probably at one time a sea bottom, consequently leaving a deposit of a very rich and fertile nature. The trees above mentioned are growing in some of the best of soil, which is resting on a mixture of beach or shingle and sea sand, under which lies a thick bed of dark clayey soil though not of a poor nature. But not only do Evergreen Oaks thrive here, and also large trees of Acacias 40 feet in height, as well as Variegated Hollies, while against the house are fine plants of Roses 20 feet up the wall, while the windows are encircled by fine plants of the large-leaved Myrtle all in full health.—THOMAS RECORD.

## SOME USEFUL PLANTS.

THE following is a list of plants that I have found serviceable during the present and recent seasons :—

### GLADIOLUS.

Dr. Bailly, a glowing soft scarlet, is going to prove one of the best Also very fine is Panama, another of the 1888 varieties. Snowdon, an English raised variety, was exhibited in fine form. I have not yet secured this sort, but evidently it is one of the very finest. Enchanteresse has again been fine. Amitié, one of the soft shaded sorts, is one of the hardiest and also one of the grandest kinds. Indispensable also are Dalila, M. A. Brongniart, Sultan, Penelope. Shakespeare, Ondine, white, with soft violet markings, a lovely sort; Matador, Grand Rouge, Bicolore, Panorama, Flamboyant, very bright, Horace Vernet, extra bright; Diamant, very pretty; Baroness Burdett Coutts, Crépuscule, Eugène Souchet, rose, beautiful sort; Opale, soft, fine; Pasteur, extra fine soft rose; Pyramide, Sceptre de Flore, Fra Diavolo, very fine; Lady Bridport, are all sorts which are of free healthy growth, and should be grown by all who admire these highly decorative flowers. I was able to flower Duchess of Edinburgh this year; a single corm I procured from Dicksons, Chester, was cut in four, and gave three spikes. For northern gardens I should not recommend it, being rather late to be useful. I wonder why brenchleyensis is not cultivated more generally. It is certainly one of the best hardy flowers, cheap to buy, and the best of decorative flowers. Bossuet, crimson; W. E. Gumbleton, Lafayette, Lamartine, Lemoinei, Alsace, Sceptre d'Or, bright yellow; Etendard, A. Chenier, soft; Etoile, very beautiful, belong to Lemoine's hardy hybrid section, and all worth growing. Cultivators of hardy flowers must be on the outlook for the new hybrids originated by M. Lemoine, and which he has christened G. Nanceianus. Nine varieties are offered, two of which have already received first class certificates from the Royal Horticultural Society. The best appear to be President Carnot, P. Duchartre, Comte H. de Choiseul, and Maurice de Vilmorin.

### CARNATION MRS. REYNOLDS HOLE.

In the Journal some months ago this variety had a rather bad character given it. I had a bed of it, and with me it proved one of the strongest and freest flowering sorts, and such as these are worth getting hold of when so many varieties without a constitution are to be had. I find it strikes quite easily from cuttings, though, of course, the strongest plants are from layers. Germania also did very well, though much of the bloom was damaged by damp and rain. In a good season this will prove one of the best of Carnations. It also strikes at any time from cuttings, and a stock of plants can be quickly run up. I am growing several dozens for spring flowering. For the latter purpose one of the very best sorts is Comtesse de Paris. The flowers are very large, and of a silvery glistening tone of white. A very beautiful sort, a sort I had last year, named Mdme. John Benary, and which is also good for spring flowering, can be highly recommended. It belongs to the fancy yellow ground section, and is beautifully flaked with rose. Good blooms are nearly 4 inches across.

### PENTSTEMONS.

During the past few years some remarkable varieties have been introduced. The spikes are long, the individual flowers very large, and the coloration most attractive. A dozen of the best are Serenade, Vesuvius, Gyp, A. Daudet, Mdme. Dieulafoy, Melinite, Derviche, Director Braumuller, Orphée, Turban, Olivier Pain, and Paul Bert.

### A GOOD BEDDING CALCEOLARIA.

This I had last year without a name. It is dwarf habited, the dwarfest yellow sort I am acquainted with, and about 3 inches less tall than Golden Gem; the flowers three times the size of that variety, and of a peculiarly soft shade of lemon yellow. I consider it one of the greatest acquisitions among flowering bedding plants. It certainly was the finest throughout the season here, and I have seen it elsewhere equally noteworthy. It has, I believe, been named Lemon Queen.—B.

## MR. RICHARD PARKER.

"PARKER OF IMPNEY" is an association of names which have been familiar to most visitors to Fruit and Chrysanthemum shows of late years, and to all readers of garden literature. When Mr. Parker first came to the front as an exhibitor of Chrysanthemums and the winner of chief prizes in good competition, his success created a feeling of wonder as to whether he would be able to maintain the position he won. He has done so, one of his latest achievements being the winning of the greatest prize ever offered for Chrysanthemums, and this in one of the closest and keenest contests of the year—namely, the forty-eight bloom class at Birmingham. The achievement is the more noteworthy since it was the fourth consecutive year in which he won the chief prize in the great midland city, and always against first-class competitors. Also in three consecutive years he has won three cups at Sheffield, including the "National" for seventy-two blooms.

Perhaps that record of success alone entitles him to the distinction of being presented to our readers as in the annexed engraving from a photograph, though it is not the only claim, and he is not the less satisfied nor the less to be commended for receiving the chief prizes for collections of fruit in 1886 at the Royal Horticultural Society's Provincial Show at Liverpool, in 1887 at Regent's Park, in 1888 at the Crystal Palace, and in 1889 at both the last named Exhibitions, the former in June the latter in November.

Having been trained under Mr. J. Smith at Mentmore and Mr.

FIG. 66.—MR. R. PARKER.

J. McIndoe at Hutton Hall, where he was foreman for eight years, Mr. Parker's competency as a fruit grower is not surprising, but he certainly took the world by surprise in taking such a distinct lead with Chrysanthemums, and it is perhaps not generally known that the first portion of his gardening experience was gained under Mr. Adam Forsyth, the famous Chrysanthemum grower in the Brunswick Nurseries, Stoke Newington, and it will be conceded he has done credit to the teaching of his old master.

Born in 1856, Mr. Parker is still a comparatively young man, with, it is hoped, a long and successful career before him. Only a man of distinct ability in the different branches of gardening could have followed with credit such skilful men as Mr. M. Temple and Mr. C. Thomas at Impney. It is true he has advantages there that fall not to the lot of all able men, for the owner of Impney, J. Corbett, Esq., M.P., is both wealthy and generous, and provides the requisite means for the high maintenance of his beautiful home surroundings.

Mr. Parker is now engaged in carrying out a considerable extent of landscape gardening—terrace extension at Impney—from plans of Mr. W. Goldring, so that Chrysanthemum growing has only a share of attention amongst various other claims on his time. He values highly the assistance of his foreman, Mr. Charles Crooks, and speaks of him as a first-class man, waiting for a position in which he can display his skill



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as an industrious all-round gardener. Thus it will be seen Mr. Parker is not above admitting his indebtedness to a good master and a good man for the success he has attained in the discharge of his duty.

## PROBLEMS IN CHRYSANTHEMUM CULTURE.

[A Paper read by Mr. J. Wright at Hull, November 21st, 1889.]

WHILE exhibitions of Chrysanthemums have done more than all else besides to popularise the flower that brightens, as no other flower can brighten, the proverbially dull month of November, something more appears needed for rendering those exhibitions completely satisfactory to those who so laudably and so ably share in producing them. I know of nothing more gratifying nor encouraging than the efforts that are made in various parts of the kingdom by gentlemen who have *not* been trained as cultivators, devoting a portion of their time, and not a small portion either, in producing the floral gatherings which afford delight to thousands who inspect and admire them. This action on the part of those who engage in it is most praiseworthy, and the business capacity thereby brought to bear in the formation and management of Chrysanthemum societies cannot be over-estimated. The response that is made by men who *are* cultivators is also gratifying—creditable to themselves and generally appreciated. I am convinced that nowhere else in Europe are Chrysanthemums so well grown as in this country, yet we are not satisfied. There is an old adage which says, "Much wants more." It is true as applied to many engagements of life, and certainly in respect to the cultivation of a flower that so well repays for the skill that is exercised in its production. The aim is ever for excellence, and still greater excellence. In the endeavour to attain an ideal standard impediments are met with that can only be removed by a combination of effort, each doing what little he can in adding to the common store of knowledge; and we may hope that by the aggregation of ideas we shall be able to take a step in advance yearly, and feel that we are treading on firm ground, thereby not only maintaining the position we occupy as the foremost Chrysanthemum-growing kingdom in Europe, but making sure, as far as possible, that our well-won supremacy will be sustained.

Under the general heading of Problems I have been requested to refer to a few of the difficulties which amateurs encounter in the prosecution of the work they so zealously engage in, but in which they sometimes fail to achieve the object of their hopes. In complying with the wishes of some good friends and ardent cultivators I find a wide field before me. What is a problem? The dictionary says—and it ought to know—that it is "a question proposed; a proposition; any question involving doubt and uncertainty." Now it so happens that I am relieved of the necessity of choosing certain propositions of that nature for discussion, because a few have been submitted to me in writing. These are—1, Time and methods of raising plants; 2, Timing of blooms in respect to cut-back and topped plants; 3, Potting, watering, and feeding Chrysanthemums; 4, The cause of damping in blooms; 5, The origin of sports. As dealing exhaustively with each subject would require five papers instead of one, each proposition can only be briefly stated in a form that will incite discussion, and I shall ask the co-operation of all—expert cultivators, and earnest, thoughtful amateurs—in endeavouring to remove some of the difficulties indicated, or, in other words, solving the problems proposed.

### RAISING PLANTS.

I am convinced that many amateurs err in establishing young plants too soon, or say in November. Where the best conveniences exist for growing the plants steadily and sturdily the objection to autumn propagation largely vanishes. It is essential for the formation of the finest specimen plants, but not for the production of handsome individual blooms, except in the case of a few late varieties which require a long period of growth. When amateurs whose glass structures are limited, and consequently usually crowded with various kinds of plants, establish many young Chrysanthemums early in the autumn, they are extremely liable to be either "drawn" or "checked" during the winter months. In the former case they are weak to begin with in spring; in the latter, apt to form buds prematurely, and just when they are not wanted. Drawing is the inevitable result of overcrowding, while checks occur through the plants remaining too long root-bound in small pots, because of the absence of room in the most suitable portions for shifting them at the proper time. Most amateurs would do better by a limitation in numbers of autumn raised plants, and deferring the propagation till the turn of the year, when every succeeding night is shorter and day grows longer—conditions that are essentially favourable for steady, substantia. growth.

If short, robust root cuttings or suckers are inserted in February or March, the leaves never allowed to flag, yet never needlessly shaded, and the young plants kept moving without check of any kind, and in the most suitable positions, throughout their whole career, the larger flowering varieties especially will produce blooms quite large enough, and what is more the buds will, in all probability, be several days later in appearing than on plants raised three months sooner, and thus the naturally early sorts that so often come too soon and are "lost" before the shows, might be kept for them. As years roll round we hear more and more regrets about losing the best blooms of the Queen family with the "Alfreds," the "Wolseleys," the Jeanne d'Arc's, and others which have such an imposing effect, and count so heavily when in clean and good condition in the stands. I suspect not a few of those losses are the outcome of over-anxiety in working for blooms of extraordinary dimensions by early autumn propagation, and the influence this exerts on premature bud formation; and it is the same in respect to the naturally early Japanese. If amateurs were more generally to establish the late blooming varieties only in the autumn, and assign them the best positions through the winter, they would make the best of their space, and by striking the early varieties later than is customary the blooming of the two sections would be more equalised; but by treating all alike from the outset, starting them all together in the race, a close finish or simultaniety of expansion cannot be expected. Cuttings inserted singly in thumb pots in January for the midseason varieties, and a few weeks later for the earlies, will make better plants than if the cuttings were struck several in a pot two months sooner, and the growth subsequently checked by the necessary separation and breakage of the roots.

In striking the cuttings needlessly high temperatures should be avoided. A close case in a comfortable greenhouse is usually warm enough, ranging as it does from about 50° to 55°. Every ray of light should be admitted that the leaves will endure without drooping, and eventually air, while adequate moisture must be afforded. Every day during which cuttings flag may be counted as two days lost in after growth, for there is the actual loss by growth cessation, *plus* the loss of energy from the cutting or plant. For this double reason half-starving cuttings to death in endeavouring to strike them on dry open stages, or in too cold positions, should be avoided, for the first plan means exhaution, the second stagnation. Steady, healthy, progressive movement from the first day to the last is the object to strive for, coddling, chilling, and checking being errors to be avoided in the career of the plants; and just in proportion as the right and rational plan is adopted, and the wrong evaded, so will the result be—sound, healthy examples of culture, capable of developing substantial blooms.

### TIMING BLOOMS WITH CUT-BACK PLANTS.

This is a difficult question to deal with, and that is probably the reason of its formulation. As may be gathered from the foregoing remarks, I am a greater believer in "timing" the blooms by the insertion of the cuttings than by cutting back the growths; that is, when the finest exhibition blooms are coveted. No doubt very handsome blooms are produced by certain cut-back plants, and these plants, by their low stature and rich leafage, are indispensable for grouping and various decorative purposes; but, as a rule, larger blooms of the same varieties are produced when cutting the plants down is not resorted to. We have to bear in mind the object in view in considering this question. If it is for retarding plants on which buds show too soon, then topping the shoots, instead of cutting back the stems, is probably the better plan to adopt. Presuming that the production of crown buds at the right time is the chief point, and the naturally "early openers" form their buds towards the end of June, or early in July, as many do, the blooms would expand too soon, whereas if they were allowed to run on naturally to the next bud, this might be too late. It would be wise, therefore, not to wait till an early July bud actually forms, but take off the top of the shoot before the bud is visible, then the bud next following would come nearer the right time. When bud formation commences, growths push from the axils of the leaves below—the natural result of the cessation of extension of the main stem. To these the stem may be cut, taking up two or three for bearing the coveted blooms. If no bud forms early in July it is a good plan to top the plants. This is doing what the bud does—arresting extension, and accelerating the growth of bloom-bearing shoots or breaks, which, but for this aid, might come too late.

Some varieties, which are habitually too late, are found to come earlier by topping about the middle of May, taking up three shoots



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# What Nottingham is Doing for Horticulture.

## INTERVIEW WITH MR. W. PARKER, SUPERINTENDENT OF PARKS AND GARDENS.

THANKS to the judicious liberality of the Corporation, and the marked capacity of an expert staff, the city of Nottingham is splendidly provided with parks and gardens. It will be a revelation to some of your readers to learn that the famous lace centre in the Midlands has no fewer than sixteen public parks and recreation grounds, varying in size from about five to two hundred and fifty acres, with a total of six hundred acres. For the well-being and development of this considerable space, under all sorts of conditions, Mr. W. Parker is directly responsible to the Corporation. He has full control, not only of the parks, but also of the cemeteries, and is altogether a very busy man. He does not talk much about himself, but I elicited the fact that he commenced gardening a little over a quarter of a century ago, making a start in the famous gardens at Trentham, when Mr. Stevens was head gardener, and the place looked its best. From Trentham he proceeded to Eaton Hall, Chester, and from Eaton Hall to Blenheim Palace, where he remained for a number of years with Mr. Whillam. He next took up public work at Leeds under Mr. Allsop. For five years he was in charge of Roundhay Park, and resigned that position seven years ago in order to take up his present duties. Prior to that date nearly all the work had been done by contract, but it is now carried out by the staff, of which he is chief.

MR. W. PARKER, HEAD PARK-KEEPER TO THE NOTTINGHAM CORPORATION.

### THE SHOW PLACE.

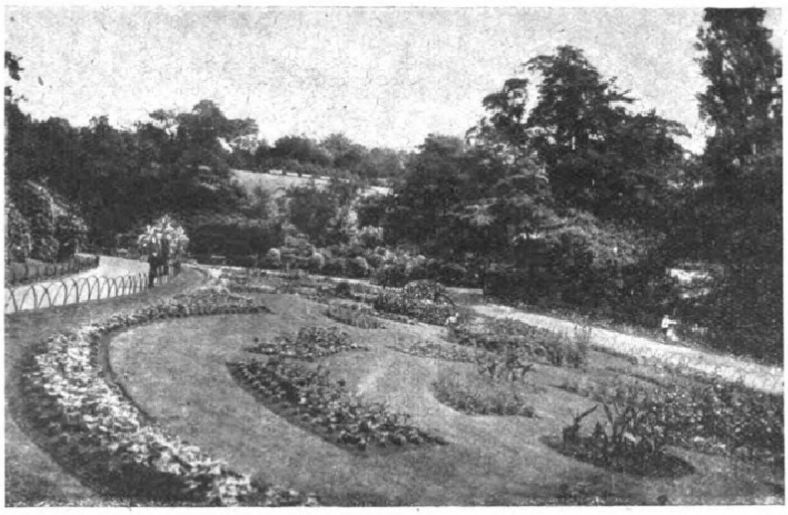
It is, of course, impossible to see the Nottingham parks in a few hours, and as the show place is the Arboretum, in the heart of the city, we concentrated our attention on its interesting and varied contents. Externally, it bears a likeness to the delightful Princes Street Gardens in Edinburgh, but the Arboretum has a certain cosy look, which is lacking in the gardens of the Scotch capital. Its general appearance is singularly cheerful, and the asphalte paths are beautifully kept.

As Mr. Parker pointed out, it is well timbered, and contains some very fine specimens of Siberian and English Elms, Platanus occidentalis, and Limes.

"What are the varieties of Elms?" I enquired.

"Ulmus campestris, U. campestris plumosa aurea, U. Roseelsii (golden), U. montana and its varieties, camperdowni (weeping), pendula, fastigiata, and purpurea—the Purple Elm. There are four varieties of the Alder, namely, glutinosa, incisa, cordata, and incana.

"Other interesting trees, of which there are good examples, include Acer platonoides Schwedleri, A. dentatum, A. rubrum, and variegated specimens of the Sycamore. There are three varieties of Tilia, vulgaris, europæa, and pendula; several good examples of Fagus sylvatica purpurea; the Turkey and Evergreen Oaks; the Tree of Heaven (Ailanthus glandulosa); Juglans nigra; Gleditschia triacanthos (the Honey Locust); and varieties of Fraxinus excelsior pendulâ, Australia, and ornus. We are also very well off in respect to Hollies, and there are thriving specimens of Golden Queen, marginata, Silver Queen, Minorca, Hodginsii, Laurifolia, Shepherdii, aureo-pictum, and tortuosa."



THE ARBORETUM, NOTTINGHAM.

### FLOWERING SHRUBS.

"How are you off for flowering shrubs?"

"I believe there was originally a first-class collection, but unfortunately most of the choice varieties have disappeared, and have not been replaced. I very much doubt if they would succeed under present auspices, on account of the smoke. While the Hollies are a striking success, we cannot, because of the smoke, grow Conifers here. Perhaps I ought to explain that in most cases the parks are recreation grounds, pure and simple, and do not allow much scope for decorative work. Of course, flowers are grown when possible, but unless the park is large enough to keep the flower garden and the recreation portion quite apart, the decorative part is apt to suffer."

"But you have a fine show of bedding in the Arboretum."

"The Arboretum bedding is the only formal bedding we have worth speaking of. As I have already mentioned, the work, until about two years ago, was done by contract, and the bedding consisted of the stereotyped panels of Geraniums and Calceolarias. But we are altering all that as quickly as possible, and I am hoping to get up a good stock of plants for mixed bedding this year, including specimens of Eucalyptus, Abutilon Thompsonii, Euonymus variegata, Acer negundo, and Fuchsias. These will be let into the grass. Last year we made a feature of Fuchsias, and they did remarkably well. Also several beds of Abutilon Thompsonii, with light blue Violas for groundwork, and a touch of scarlet Paul Crampel, were very effective. It is a tall order to please everybody; but we do what we can in that direction; and to gratify the old-fashioned section of the public, we have some carpet beds, but I do not care for them. My idea is to grow the plants naturally, and group them in a natural way."

"You have not so far mentioned whether you grow Roses?"

"Hitherto, practically no Roses have been grown, but I am not at all sure that the smoke is in their case a deterrent. Moreover, Nottingham, after all, is not nearly so smoky as some towns, and on the east side, in a district called the Hunger Hill Allotments, some splendid Roses are grown. This year we are trying a few climbers on pillars, and on the bandstand, as an experiment. If they succeed we shall certainly go in for more. In nearly all our grounds the soil is of a light, sandy character, and for this reason is not favourable to Roses."

"Speaking of allotments, do you find that they are appreciated?"

"Very much indeed. Our allotment gardens are not just bare places with a few Cabbages and Potatoes growing on them; but fruit

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trees and flowers are freely grown, and each allotment has attached to it a summer house, some of the summer houses being almost like chalets. Quite well-to-do people have gardens outside Nottingham, and spend long days there in the summer.

### SUB-TROPICAL VARIETIES.

"In sheltered corners of the Arboretum we have beds of succulent and sub-tropical plants. They are all mixed up and arranged for effect with a groundwork of Mesembryanthemums, or, as an alternative, Festuca glauca. The varieties most in evidence are Aralia Sieboldii, Grevillea robusta, Eucalyptus globulus, Cannas in variety, Agave americana, Acacia lopantha, Ricinus in variety, Dracæna australis and gracilis, Zea japonica, Zinziber officilalis (ginger), and Sempervivum farinosa."

"You have every promise of a good show of bulbs."

"In connection with bulbs, I should say we make a point of having a groundwork of some sort in all the beds containing bulbs. This gives them a furnished appearance through the winter. One of our combinations consists of Sutton's Royal Blue Myosotis, with Tulip Keiser's Kroon; and another, a red Daisy, yellow Valeriana, with a scarlet Tulip. I noticed the other day a strip of red Daisies with Scilla siberica in front of a patch of the yellow Valeriana, and it looked very effective. We do not grow many Hyacinths, but there are a few mixed beds flowering in company with Polyanthuses and Primroses. Perhaps I ought to explain that when I took charge of the parks, all the contracts for work in the various grounds had expired, with the exception of the Arboretum and the forest. The forest contract ran out two years later, but the Arboretum contract did not finish until 1912. As you will understand, this was not a very satisfactory method of working, as any alterations or improvements were 'extras,' and consequently were shelved nine times out of ten, instead of being carried out by the staff as opportunity offered, without any fuss. The result is that at the present time we have a great many improvements to make, but as they have to be done as a matter of ordinary routine, it will take a considerable period to finish them.

"In all respects we make the Arboretum as ornamental as possible, and the large pond is filled with water fowl, while the aviaries contain a fair collection of British and foreign birds. These are appreciated by the children, and the special favourite is an ancient parrot, who, if you stop to look at him, greets you with, 'Good-bye, Cocky,' as a gentle hint to move on."

"Have you any show houses at the Arboretum?"

"No; but we have enough nursery ground and sufficient propagating houses here to grow all the bedding stuff required for this park. Last year the number of plants used was about twenty-seven thousand, not counting annuals, such as Stocks and Antirrhinums.

### BULLWELL HALL PARK.

"A great deal more might be said about the Arboretum, but you will like to have some details about some of the other properties belonging to the corporation. Much of the success of the Nottingham parks is, I think, due to the energy and enthusiasm of Mr. Councillor C. J. Mee. He has occupied the position of chairman of the Public Parks Committee for the past six years. He is a nurseryman and florist, and a man well known in the horticultural world, and devotes much time to public Parks matters. About the time that he became chairman, Bulwell Hall Park was purchased. It is a natural park, well wooded, and has two good-sized lakes, where fishing is allowed. A hundred acres are set apart for golf, and the remaining portion is used by the general public. It includes grounds for tennis, football, cricket, and a bowling green; the original mansion being used as refreshment rooms.

"At Bulwell Hall Park there are about five acres of nursery ground, where trees and shrubs are grown, and there is enough glass to provide bedding plants for all the ground in the city, except the Arboretum. The whole of the work of forming the links and making the rest of the ground suitable for a public park was carried out by the staff, who also laid out a large new cemetery to the south of the city. Bulwell Forest is almost ideal golfing ground, and from an ornamental point of view the patches of glorious Gorse are highly decorative. At Bulwell, we contemplate in the future making a good deal of the herbaceous border, but gardening, apart from the nursery, has to take second place. This is very unfortunate, because almost anything would grow there. However, it is proposed to take the trams up into the park, and if that is done no doubt things will go ahead. All the same, it is worth walking a mile to see.

"Just now the woods are full of Anemones, Dog's Mercury, Violets, Primroses, the Cuckoo-pint, Veronicas, and a little later on there will be acres of Bluebells. Two or three years ago the rough ground through the links was covered with Poppies. These have suddenly disappeared, and now scarcely one can be found. The fact is rather extraordinary, as they were left to seed, and I cannot account for it.

"In the park there are grand specimens of forest trees, especially Oaks, Beeches, Chestnuts, Limes, and Scotch Firs. Unfortunately, some of the best Oaks are beginning to die at the top. Possibly this is accounted for by mining operations. In the grounds near the hall there is a fine old plant of Snowy Mespilus, which is just coming into flower, and Magnolia conspicua will presently yield a quantity of blossoms. Berberis Darwinii and stenophylla are in full flower, but Rhododendrons do not grow very well, because of the presence of lime.

### HERBACEOUS FLOWERS IN KING EDWARD PARK.

"Then there is King Edward Park on the east side of the town, in a very thickly populated district. It slopes to the west and south-west, and thus catches all the smoke and soot when the prevailing winds blow, consequently you can understand that all vegetation is grown under more or less adverse circumstances. Still, we do fairly well. A belt of shrubs was planted about five years ago, and the survivors are Hollies in variety, Golden Elders, which are rampant, Tamarisk, Aucubas, Prunus Pissardii, Philadelphus (which does not flower), Ribes, and Dog Wood. All the stronger-growing herbaceous plants do well, especially Doronicum, Chrysanthemum maximum, the Asters, Galega, Gaillardia, Erigeron, Iris Germanica, Sunflowers, and Solidagos. At Vernon Park and at Radford and Lenton recreation grounds where the circumstances are not so adverse as at King Edward Park, most flowers and shrubs grow well and bloom freely.

### THE VICTORIA EMBANKMENT.

"The Victoria Embankment is a promenade extending a mile and a quarter along the river bank. Along the main drive is an avenue of Planes, Birches, and Limes, which seem to find the conditions congenial. They have no special treatment, except in the way of pruning. They are exposed to the south-west, and as they are apt to grow a bit stronger on the north-east side they have to be pruned into shape. The embankment was constructed about twelve years ago, mainly of gravel dredged from the river, and cost £110,000. Near by are cricket and football grounds and a bowling green, covering altogether about sixty acres. Besides the Victoria Embankment there are public walks lined with grass and trees in various parts of the city."

"I was much interested in some remarks of yours respecting the digging up of wild plants and Ferns for sale. Have you a special corner in any of the parks which is devoted to the cultivation of wild flowers? Or is it impossible to grow them?"

"There is no place devoted to the cultivation of wild flowers, not because it is impossible to grow them, but because there is no space available, except perhaps at Bulwell Hall. I believe that a number of them could be grown if we had room, but all the space possible has been given up to purposes of recreation.

### HORTICULTURE AND RECREATION.

"As regards recreation, I think Nottingham is as well provided for as most towns of its size; especially for cricket. As you are no doubt aware, the people here are very keen cricketers, and the grounds have to be kept like county pitches. There are forty-four match grounds available, and seventy practice pitches. Eighty-five clubs used the grounds last season, and seven hundred and five matches were played. A fee of 2s. 6d. per match is charged, and the matches and dates are all arranged before the season commences. For football we have eleven match grounds. Last season twenty-five clubs used them, and three hundred and thirty-eight matches were played. A charge of 5s. is made for each match. There are now eleven bowling greens in the various parks, and besides the two eighteen-hole golf courses at Bulwell, we have an eighteen-hole putting course in Nottingham Forest. Finally, the Parks Committee are responsible for the trees in the boulevards. They are a feature of the city, and extend for several miles, being planted mainly with Planes, Limes, and Wych Elms." ALFRED WILCOX.

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When planting-out Stocks, it is well to remember that the very strong seedlings, with coarse roots, are almost invariably single. Select instead those of medium size, with fibrous roots.

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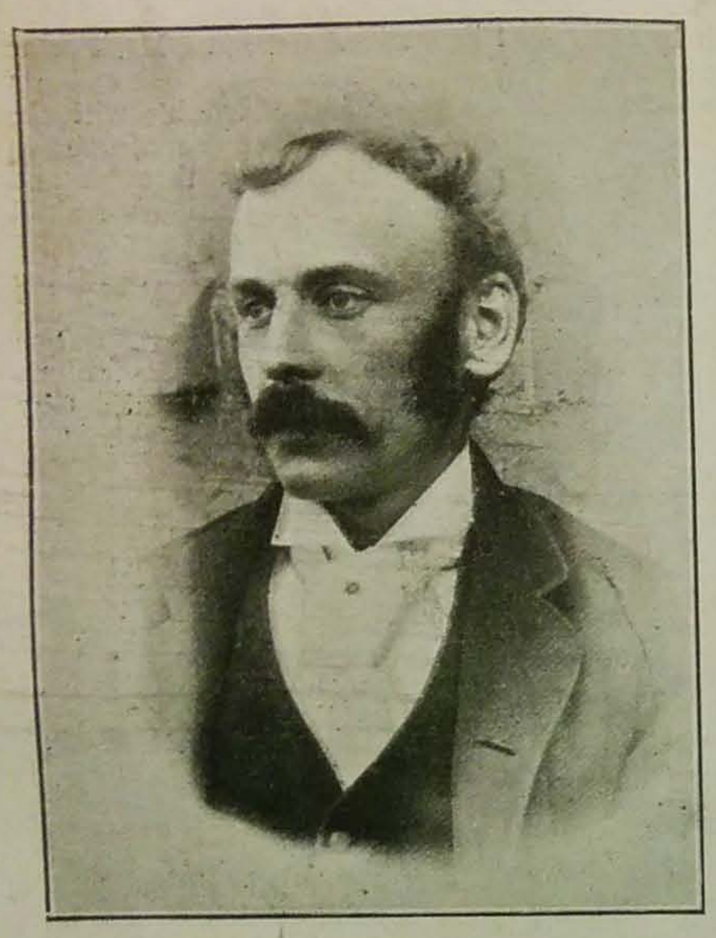
may be formed in the first year after planting. Afterwards, beyond the shortening back of any branches taking a strong lead, very little pruning is necessary, and the trees may be allowed to extend until they have occupied the space allotted to them. The shoots must then be thinned out at intervals, the older being cut away to make room for the younger, but this need not be a severe operation if disbudding is performed properly, the buds being first thinned



MR. J. PARKES.

out to about four inches apart, and finally to about ten or twelve. If this is done, winter pruning is rendered unnecessary.

January 20th.—The fact that most brilliantly-coloured flowers are scentless, while many of the most fragrant flowers are comparatively inconspicuous, shows that insects are attracted sometimes by smell, and sometimes by sight, and not always by both combined. It seems probable that the former sense is more highly developed than the latter. The Stapelias furnish us with a case in point. They are Cape plants, bearing remarkable and often exceedingly handsome flowers, with the smell of decayed meat, which has gained for them the name of Carrion Plants. When they are grown in an English greenhouse, they always attract blue-bottles, and the insects, evidently influenced solely by the smell, deposit their eggs on the flowers, the inevitable result being that the grubs, when hatched, die from want of food. What makes the mistake the more remarkable is the fact that the flies themselves, before laying their eggs, must surely have discovered that the flowers were not what they had expected. The only explanation is that the idea suggested by the smell of decayed meat was so strong that it persisted, in spite of the failure of the usual tests. There are other plants which have an odour quite as objectionable as the Stapelias. The most singular is the Rafflesia, which bears enormous flowers a yard in diameter. As male and female are on different plants, the assistance of insects is necessary to ensure fertilisation, and their abominable smell attracts swarms of flies.

January 21st.—The gardener should always be on the look-out for what to avoid as well as for what to imitate. One of the worst faults is overcrowding. At this season it is very easy to plant herbaceous perennials too thickly; it requires considerable experience to draw out a bold and definite plan, and some imagination to picture its effect in summer. The photograph shows the confused effect which is produced by overcrowding.

H. C. DAVIDSON.

# Famous Gardeners at Home.

## No. 173.—MR. J. PARKES, AT THE GARDENS, CHERRYHINTON HALL, CAMBRIDGE.

THE quaintly-named village of Cherryhinton is not far outside the boundaries of busy Cambridge, but Cherryhinton Hall, the residence of Mr. W. P. Neal, who is well-known in the City of London, is as secluded as if it were a hundred miles away; and the owner must immensely appreciate the striking contrast between the noise in the centre of the capital, and the quiet of his country house. By his permission I was able, during the early part of December, to visit Cherryhinton, and to the kindness of Mr. C. A. Engelhardt I am indebted for the use of photographs of the house and gardens.

Mr. Parkes, the gardener, has been at Cherryhinton less than a year, but in this short period he has not only effected improvements in the gardens under his charge, but, exhibiting for the first time at the Cambridge Chrysanthemum show, in November, he succeeded in winning the first prize for twenty-four Japanese blooms, and the second for twenty-four Incurved. But when I began to talk about his previous successes, he modestly suggested that any details about himself might be deferred until we had been round the gardens; and I accordingly asked him, as we proceeded along the well-kept drive to the Hall—a handsome and well-preserved building—to tell me the extent of the grounds, and the nature of the alterations which were being made.

"The park and gardens," he rejoined, "are about forty acres, of which the pleasure grounds comprise between five and six. The kitchen garden and glass occupy about three acres."

"Has the acreage of the gardens been increased since you came?"

"No, but the stove, an intermediate house, and two greenhouses have been added to the glass. A good many alterations have, however, been made in the pleasure grounds, of course, in accordance with the wishes of Mr. Neal. For instance, some of the shrubberies have been entirely done away with, and new flower borders have been made in front of those shrubberies which remain. We are just about to plant a collection of flowering and foliage shrubs, with a few specimen Conifers. At present we are very short of Conifers. We are also going to have a large new herbaceous border. The lawns are very uneven, and a good deal of lifting has to be done. It is intended to have a full-sized tennis court. Mr. Neal, who is a liberal supporter of the Cambridge Horticultural Society, and gives me every possible encouragement to improve and beautify the gardens, is fond of horticulture generally, but he has a special liking for Begonias, Caladiums, Gloxinias, Chrysanthemums, and foliage plants."

"Has the stock of fruit trees been augmented?"

"Yes, I have planted considerably over two hundred Apple, Pear, and Plum trees. The old existing Apples, which are chiefly standards, include a good many seedlings. Some of the varieties we have planted are Peasgood's Nonsuch, Gascoyne's Seedling, Worcester Pearmain, Beauty of Kent, Annie Elizabeth, New Hawthornden, Normanton Pippin, Warner's King, Golden Noble, Cox's Orange Pippin, Ribston Pippin, Red Nonpareil, Mere de Menage, Blenheim Orange, Monk's Nonpareil, and King Pippin, all bush trees on the Paradise stock."

"And the Pears and Plums?"

"The Pears include Williams's Bon Chrétien, Beurré Rance, Durondeau, Marie Louise, Conference, Souvenir du Congres, Beurré Diel, Pitmaston Duchess, and Doyenné du Comice; while the best of the Plums are Coe's Golden Drop, Jefferson's Prolific, Greengage, and Carew. With the new trees, we have a fairly representative collection."

The first house we entered was the stove, and here I saw a very fine specimen of Anthurium Veitchii.

"It is about four years old," said Mr. Parkes. "When I came, it had only four leaves; now it has eleven."

CHERRYHINTON HALL, CAMBRIDGE.

"You have several varieties of Alocasias?"

"Yes, one of the best is A. Martin Cahuzac; A. spectabilis is also very good, also Augusta, Mortefontainensis, and Thibautiana. With regard to the treatment of Alocasias, they require a special soil composed of peat fibre, sphagnum moss, charcoal and sand. Anyhow, they like it better. I should add that A. macrorhiza variegata makes tremendous growth, and the colour is grand."

"Which do you recommend most of your Dracænas?"

"The varieties that seem to do best are superba, Cooperii, Lord Wolseley, Sidneyi, and terminalis alba."

"Crotons are well represented; which are the favourites among the newer varieties?"

"Empress, Chelsonii, Aigburthiensis, and Trimibabilis, which is very much like Queen Victoria. Other varieties are Mr. Dorman, Hawkeri, Weismannii, Baron F. Sallier, Flamingo, and Aralia Veitchii gracillum."

"I see that you have a few nice Orchids."

"In this house they are chiefly Cypripediums Boxalli and Harrisianum, Lælia anceps, and Calanthes Veitchii. We have just started Poinsettias. I had two little plants at first, out of which I got nine, and I expect to have a good stock of them to dot about the Orchid house among the Cypripediums.

"As you will notice," continued Mr. Parkes, "the glass, like the garden generally, is in process of development, but our aim is to make the most of what we have, as well as to introduce any new features we can. The collection of Palms includes two rather fine specimens of Kentia Fosteriana, two Phœnix dactylifera, and several Latanias."

"Your Allamandas are doing well?"

"Yes, I only struck the cuttings six months ago, and they are now eight feet long. I struck the Cissus discolor about the same time, and it is now not only well coloured, but about five feet high."

"I suppose that the Pancratium was in the house before you came?"

"It was, but I have two plants of a better variety, P. fragrans."

"How many plants of Platycerium alcicorne are there in the house?"

"Half a dozen. It is not really a stove plant, and should be in a cool house. I shall transfer it as soon as I have the convenience. At present we want all the room we have in the cool houses, in order to get as many flowers as we can. Mr. and Mrs. Neal like to have plenty to give away to the church and the hospital. They frequently send fruit and vegetables to the latter."

"You have a quantity of Arum Lilies in the intermediate house?"

"There are thirty-two plants in pots, the sizes being from eight to twelve inches. I think they are doing nicely. Here also are four pieces of Bamboo, which were put in recently. I am going to split them up. On the shelf near the glass are Coleus plants which I am keeping for stock purposes. The group of Salvia splendens has served its purpose admirably. We used it to decorate the church on All Saints' Day."

"Do you grow Asparagus Sprengeri in pots?"

"Yes. I prefer to do so. The pot itself is plunged into the basket, and I find this plan answers better than planting out. The plants are raised from seed sown in May. We also raise Smilax from seed, and grow a large quantity, which is most useful for draping the table."

"You appear to fill a stage of the cool house with a striking collection of Begonias Gloire de Lorraine?"

"There must be nearly a hundred pots. A feature is the size of the flowers. Several are in 8-in. pots, dotted with fine plants of Cocos Weddelliana. Opposite the Begonias are a hundred of the finest varieties of Zonal Geraniums. There are more singles than doubles. The best varieties include Hall Caine, Mark Twain, Rudyard Kipling, Andrew Lang, Dryden, Mrs. Steadall, Hermione, Lady Reid, Carillon, Ian Maclaren, Agnes, Magnificent, Stella Masse, and a very good seedling of two colours, scarlet with a blue shade. Primulas of the Chinese strain are on the ledge above."

"Do you grow Primula obconica?"

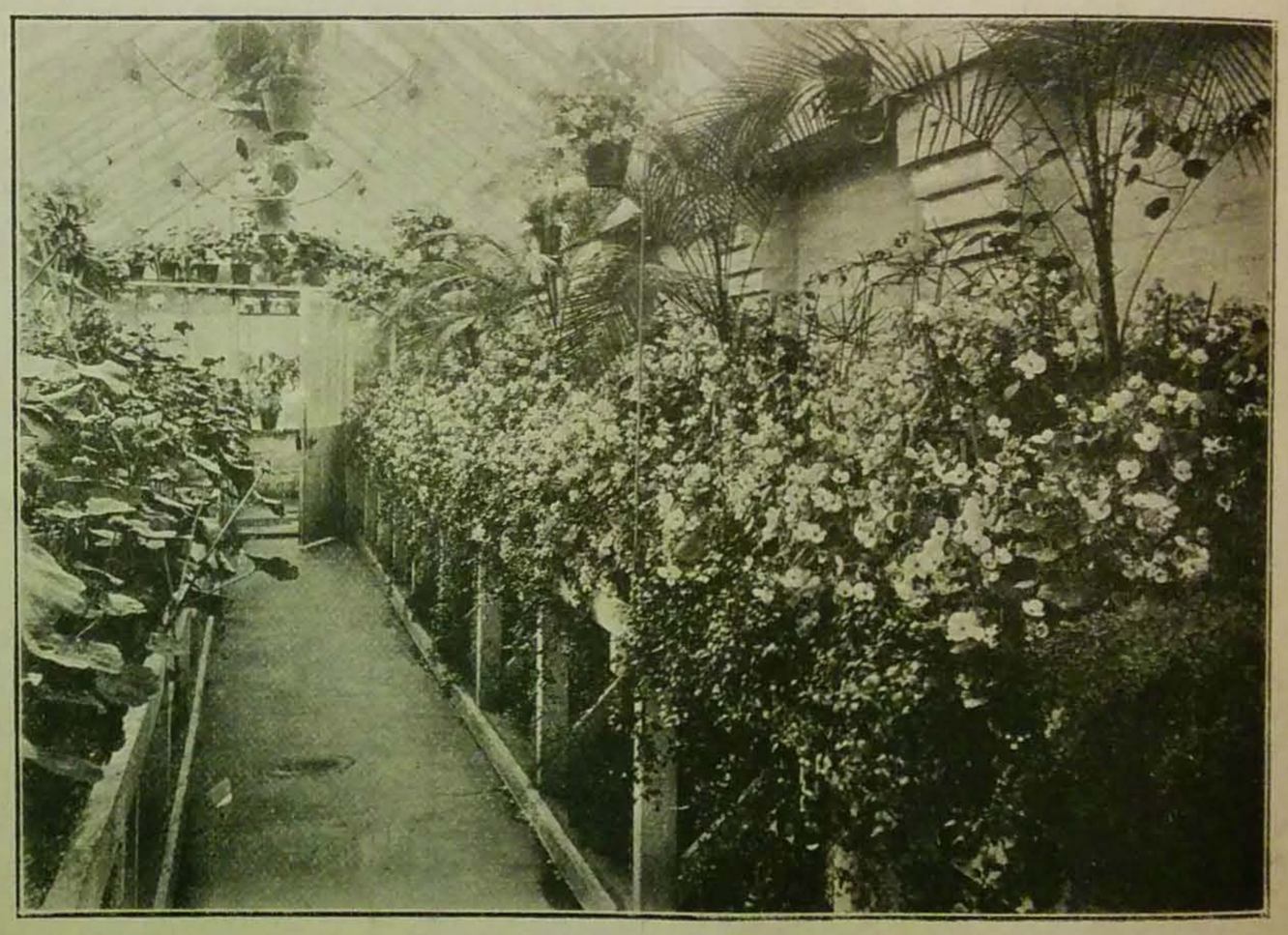
"In this house," said Mr. Parkes, as we entered another, "there are some double white and also Primula obconica. I have never heard anyone complain of it. Here are also some plants of Libonia floribunda, which is not much grown. The flowers are scarlet, with yellow tips, and we have them from November to the end of January."

"Is it easy to grow?"

"Fairly so. I had one small plant from London in March, and struck from it. I am just starting Chrysanthemum cuttings."

"You put them in early in December?"

"Always. These include all the latest varieties. Among the Incurved are Souvenir de William Clibran, Charles Blake, William Higgs, Fred Palmer, The King, Mrs. J. P. Bryce; and, among the Japanese, Sensation, Chrysanthemiste Montingy, W. Duckham, Harry Perkins, Bessie Godfrey, and Henry Barnes. In one frame we have the new varieties, and in the other the older ones, which, however, include all of the best-known standard varieties."



GLOIRE DE LORRAINE BEGONIAS AT CHERRYHINTON HALL.

"Are Cattleyas the principal feature in the Orchid house?"

"Cattleyas and Dendrobiums. There are also Cymbidiums giganteum, and Oncidium varicosum, and O. grandiflorum. The Dendrobiums are nobile, Wardianum and densiflorum. The Cypripediums here include Charlesworthii, insigne, Spicerianum, and Sedeni; and there are a number of Calanthes Veitchii. We grow more Primulas in this house, mainly in order to have sufficient to make a bank to take the place of Geraniums when they are over in the other house."

"You are just starting Carnations?"

"Yes, it is proposed to make a house of Malmaisons. The span-roofed greenhouse is used for the Chrysanthemums, and at present, as you see, is largely filled with Cineraria stellata and the hybrids. On the other side are Freesias and Cyclamens. There are about fifty of the latter, which are now being transferred from 'sixty' to 'forty-eight'-sized pots. Some other seedlings are coming on in the ordinary batch."

"What are the ordinary varieties?"

"Bush Hill Pioneer, Sutton's Butterfly, and Sutton's Prize strain. In this house are also two dozen pots of Lilium Harrisii, and about fifty Verbenas Miss Willmott, for stock purposes."

"You did not mention the varieties of Carnations."

"They include Souvenir de la Malmaison, Churchwarden, Princess of Wales, Prime Minister, Mrs. Trelawney, and Mercia. I only had the plants in six weeks ago. In the two frames adjoining the span-roofed house, we grow Violets Marie Louise and Princess of Wales. We are now picking several bunches a week of each."

Then we went into the Vinery, and Mr. Parkes remarked,

"We have had a good deal of trouble with the Muscats, owing to the excessive use of soot in the border. We have to rinse it through and through to get the growth, but I think we shall have some fruit next season."

"You have a nice batch of Clivias in the Vinery?"

"About ten; some in 'twos' pots. The Japanese Chrysanthemums standing here include Julia Scaramanga, Frank Hannaford, Guy Hamilton, Bonnie Dundee, Golden Gate, Pride of Madford, Black Hawk, and Simplicity."

"Peaches and Nectarines are grown on the walls of the kitchen garden, I notice."

"Yes, all round this portion, but the kitchen garden is, in fact, divided. The varieties of Peaches are Bellegarde, Royal George and Hale's Early; of Nectarines, Rivers' Early and Lord Napier. The old Pear tree close to the glass is Beurré Diel."

As our time was getting limited, we did not stay to look over the kitchen garden, but proceeded to the beds in front of the Hall.

"There are eleven beds here," said Mr. Parkes, "the centre bed being filled with Doronicum plantagineum excelsum, which flowers with great freedom in the spring. The flowers, a very showy yellow, are five to six inches in diameter. In four of the beds there is Myosotis dissitiflora, and in four others Polyanthus. The remaining two are filled with Wallflowers. Tulips are dotted amongst both the Myosotis and the Polyanthus."

"Then, there is the border with varieties of Wallflowers?"

"The centre is filled with Parrot Tulips, the front of the inner border contains red and white Daisies and Peacock Pansies. The big bed of mixed Wallflowers on the lawns took the place of an old Walnut stump. In the shrubbery bor-

der are Wallflowers, Polyanthus, Pansies, and Narcissi. Roses are grown on standards close to the Hall, and there are also three beds of Roses."

"How many trees are there in the Rosery itself?"

"Quite two hundred. The Rosery has lately been altered and improved, and the varieties are very numerous. They include Frau Karl Druschki, Mrs. W. J. Grant, Maman Cochet, White Maman Cochet, Killarney, La France, Mrs. J. Laing, Victor Hugo, Reynolds Hole, Marie van Houtte, Augustine Guinnoisseau, Bessie Brown, Caroline Testout, and numerous other varieties, with climbing kinds on the house. Crimson Ramblers are also planted on the side of the hurdles forming the border to the park."

"What are the usual contents of the herbaceous borders here?"

"They include Michaelmas Daisies, Phloxes in variety, Pyrethrums, Delphiniums, Harpaliums (Miss Mellish), Statices in variety, Gypsophila paniculata, Incarvillea, Pæonies (mostly Japanese varieties), and Megasea."

"Before we leave the beds, you might tell me about the Begonias?"

"We grow about a hundred and fifty in the glasshouses, including the best of Messrs. Blackmore and Langdon's varieties, also of those of Messrs. Davis, of Yeovil. I ought to have mentioned before that we have eighty bulbs of the very best and latest varieties of Caladiums, including candidum, W. E. Gladstone, Silver Cloud, van Dyke, Mrs. J. Box, Leamington, and John Peed. Finally, we have a very fine collection of Gloxinias, numbering between two and three hundred. They are this year's seedlings, and one-year-old plants. Gloxinias take the place of the Zonals in the flowering house."

"Now about your own career, Mr. Parkes?"

"I started in Worcestershire, at Brookfield, Bellbroughton. From Brookfield I went to Evesham, and then to Ferndale, Pedmore, near Stourbridge."

"You were there some time, I think?"

"For nine years and a-half as head gardener. Carpet bedding was a feature at Ferndale. One carpet bed, twenty-two feet long and a foot wide, I planted with Iresine Lindenii, Mesembryanthemum, Alternantheras of sorts, Sedums, Golden Feather, a dwarf Thyme, Antennaria tomentosa, Herniaria glabra, and an outer edging of Echeveria secunda glauca. Carnations were grown in quantity there. We had a large assortment of the best Apples, Pears, and Plums in the kitchen garden, and Chrysanthemums, too, were in strong force."

"Where did you go next?"

"As head at The Rectory, Severn Stoke. One of the features there was the cultivation of Figs. There were three large houses. The Vinery was also a hundred and fifty feet long. The pleasure gardens were new."

"You did a lot of showing at Ferndale?"

"Yes. I was never beaten in Chrysanthemums at the local show, nor in Grapes, though I had only one Vinery. During seven years at Ferndale I took over a hundred firsts and seconds, in addition to a large number of thirds and certificates."

"Did you show vegetables?"

"At the Birmingham show one year I exhibited a hundred Onions (Ailsa Craig), no bulb being less than two pounds in weight. I showed vegetables at Kidderminster, Hagley, Wolverhampton, and Stourbridge; and Chrysanthemums at Birmingham, Wolverhampton, West Bromwich, Droitwich, Kidderminster, and Smethwick. I won the second prize for the Cup class of Incurved Chrysanthemums at Wolverhampton, and was only beaten on one occasion at West Bromwich."

"You came from Worcestershire to Cherry-hinton?"

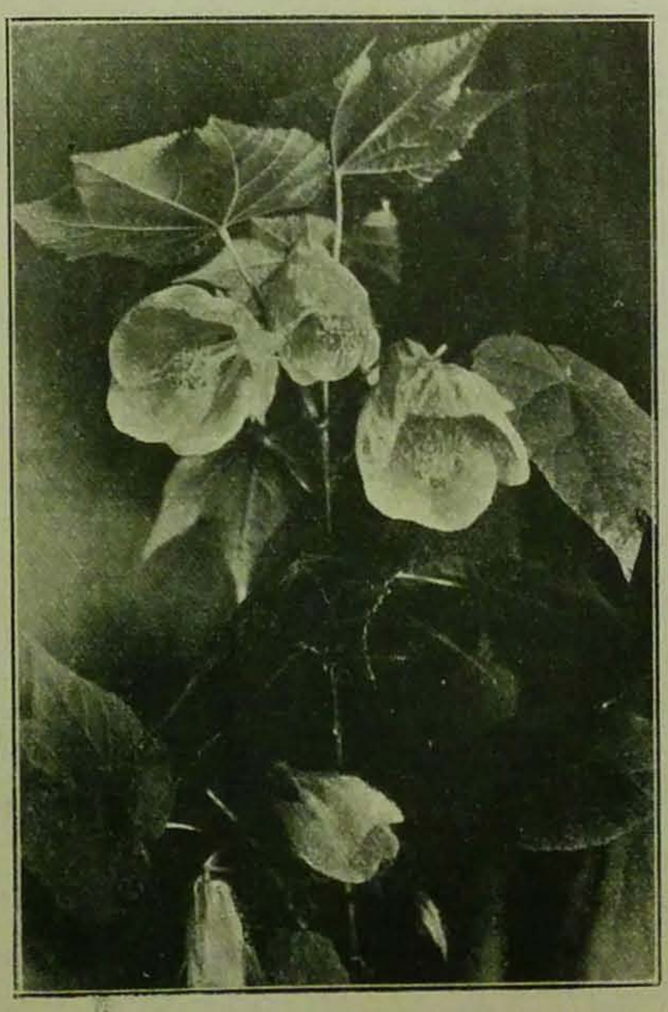
"Yes. There were only a few inferior varieties of Chrysanthemums when I came here. So I had to set to work at once to be able to show in November. Having to put up with the weak plants, I had to treat them nearly naturally. I did a little heading back in July, so as to get the first-crown bud a little later, but I scarcely expected to be successful at the show. I hope to do more showing as time goes on, when the place is in the perfect order I should like to see it. My son Frank is one of my assistants, and likes the work. Though the change from Worcestershire to Cambridgeshire was considerable, the conditions of gardening are not materially different, and I am looking forward to future developments with much hopefulness."

ALFRED WILCOX.

# Letters from a Lady Gardener.

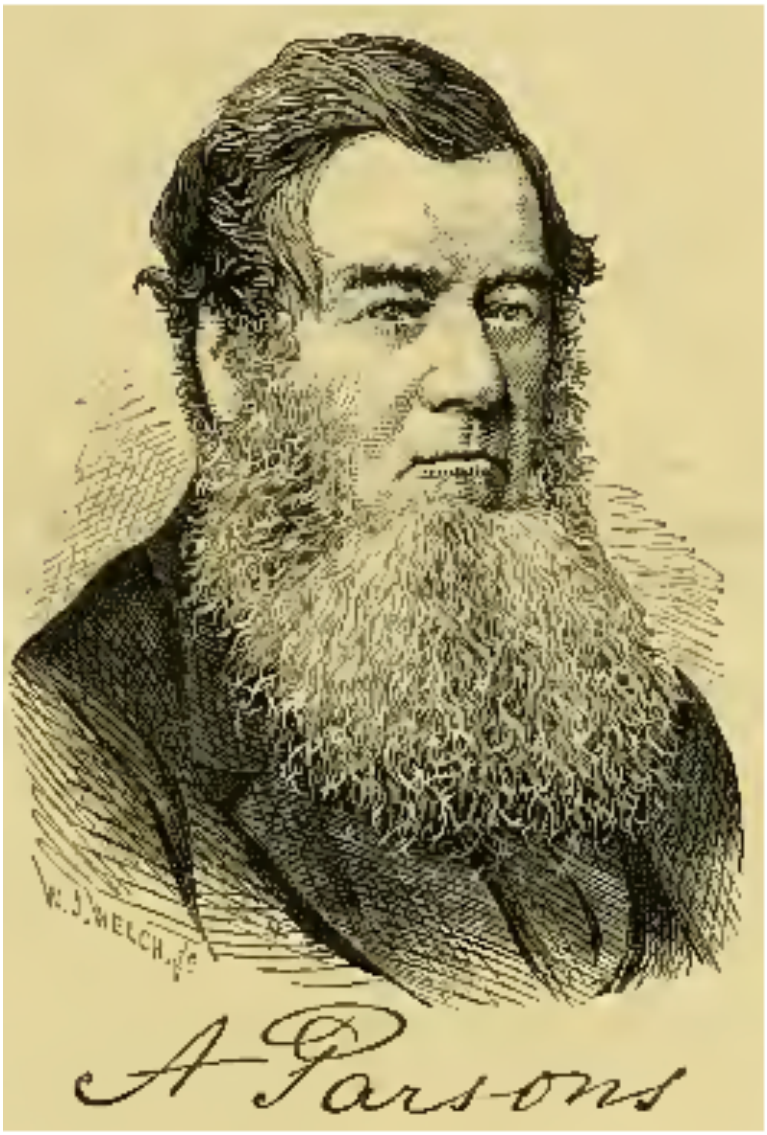
## No. 129.—POT VINES, AND ABUTILONS.

DEAR KATE,—Now is the time to start a pot Vine or two in your greenhouse, which you say is so hot in summer that you need a shady hat before venturing into it. What more useful, in such a case, than a few climbers? But, as you have not a border in your greenhouse, in which to plant them, pot Vines will just suit your case. You can, of course, obtain your Vines in large pots, ready for forcing; but you can grow them yourself for another year, from "eyes" cut from the stout sideshoots pruned from the Vines in the regular Vinery. These "eyes" are merely the dormant leaf-buds; you should choose a good, stout one, and cut the wood off, leaving about three quarters of an inch on either side of it. Then peg each down horizontally in a thumb-pot of rich soil (or into a dried turf, with a little soil on it), and lay it on a hotbed (or plunge the pot in warmth), keeping all moist and warm. Very soon the "eye" will swell and burst, as though it were still on the Vine, throwing down a mass of roots into the little pot, or turf, when you can shift it into a 6-in. pot, still keeping it warm and moist. The young Vine must be kept growing strongly, and in May it will be fit to plant in a box or tub of rich soil, after which the long rod should be trained under the glass, about ten inches below it, syringed every evening to keep it clean, and given plenty of tepid water. In fact, it must be encouraged to grow as much as possible; liquid manure will suit it twice a week, and a top-dressing of old hotbed stuff may be given in July, to keep it growing hard. At the end of August it should have made a rod about ten or twelve feet long, and as thick as your little finger; then you should take the Vine (box or tub, and all) out, and tie the Vine up against a hot, sunny wall in the garden (or on the leads), to ripen the wood thoroughly, when less water will be wanted than before. Here it may stay until next January, when it will be fit for forcing, but you should shorten the rod a little, before Christmas, leaving about eight feet to it. On such a one-year-old plant, I have cut from eight to eleven bunches of fine Grapes, but to do it well there must be no check from first to last, no want of moisture in the air or at the roots, and no blights allowed to worry the plant, so that if you can't take the care of it which is necessary, you had better buy a Vine in a state for forcing, but be sure that the rod is thick enough, and the plant has been well grown. If in a pot, it is a good plan to stand this in a box two feet square, and about eighteen inches deep, and fill the spaces between with good, turfy loam and old manure, covering the top of the pot with this, too. The roots will then quickly run into the miniature border (which must be drained by burning holes with a poker at the bottom, and filling the lower six inches with crocks), and you can add fresh top-dressings several times. The rod can be slung about ten inches below the glass, and the sideshoots tied out as they grow, at right angles to it, pinching off their ends as soon as the flowers are open, two leaves above the bunch of fruit. Every evening the Vines must be syringed thoroughly with tepid water (except for a few days whilst the flowers are out), and the ventilators can be closed at 3.30 daily; and every morning they should be slightly opened at the top by seven o'clock, increasing the ventilation as soon as the thermometer rises to sixty-five degrees, gradually, but don't open both side and top lights together, unless the heat is above eighty degrees, and there is no cold wind to cause a sudden chill. In hot weather you must damp down the ground below the Vine at eleven o'clock and at two o'clock, to prevent too much dry heat, and always be on the look-out for a failing leaf, so as to ascertain at once the reason of it, for insects must be removed at once, or they will get ahead and spoil the Grapes. Keep the atmosphere slightly moist, but airy, in the daytime, and if you don't get up early in the morning, you had better leave a crack of air on all night at the top of the greenhouse, for if the sunshine reaches the glass roof before there is an outlet for the drops which accumulate below it at night, woe betide your Grapes, for they will be dripped upon, and mildew will be the result. But home-grown Grapes are so much better flavoured than others that I am sure you will enjoy them thoroughly. The bunches must, of course, be thinned as soon as the Grapes are as big as small Peas, cutting away about half or more of the smallest of them, and you must soak the soil in the box daily with tepid water, and give it soot-water besides, every alternate day. Give more air at night as soon as the Grapes begin to colour, and the greenhouse should be open night and day as they are approaching ripeness, for this gives fine flavour to them.



ABUTILON—GOLDEN FLEECE.

What a useful plant is the Abutilon! If you plant it in the border of a warm greenhouse, it will blossom continuously for years; in fact, I have had one in bloom for four years without stopping, until I, unfortunately, let the house, when my tenants of the winter killed it by calmly omitting to water it at all. It might have gone on blossoming till now, but for that.




Anthony Parsons

Gardeners' Chronicle, 1875 n.s. 3

In Mr. Anthony Parsons, whose portrait we now publish, we have one of the comparatively few professional horticulturists who, to a thorough knowledge of practical gardening in all its departments, adds a well trained acquaintance with the culture and merits of florists' flowers. In consequence of this extended range of information, no less than for his uncompromising and unswerving integrity, his services are much sought for and appreciated as a censor at the metropolitan exhibitions. He was born in 1810, at Merton, in Surrey, his father, whom it was his great misfortune to lose while he was yet young, being a small farmer, and carrying on also the business of a hay and corn dealer.

"To a passion for flowers, which possessed me from my very earliest days," writes Mr. Parsons, "I trace the impulse which caused me to follow horticultural pursuits to gain a living. I used to save up my pence to purchase Primroses, Daisies, and such plants. As I grew my ambition increased, and, among other things, I purchased a Pelargonium called Commander-in-Chief. This purchase I shall never forget, my delight in its possession was so great that it determined me in my future career. Shortly after this period a friend of the family, Mr. Lee, entered the service of the Earl of Chichester, at Stanmer Park, near Brighton, as gardener, and, knowing my desire, he offered to take me into the gardens. I readily accepted his offer, and was duly installed in the office of kitchen boy, filling up my spare time in the houses under the late James Cuthill, who was foreman. After two years' service I left, and shortly after entered the employ of Mr. Charles Robinson, of Thames Ditton, where I worked hard, and learned much. I remained here one season, a considerable part of which time I was employed in the houses. I left Thames Ditton to accept a situation offered by Mr. Hugh Fenton, gardener to J. Berens, Esq., Keventon, St. Mary's Cray. At this place there was a very fine collection of herbaceous plants, made by the former gardener, Mr. R. Sim, now of Foot's Cray, and I used to spend hours of my spare time in studying these plants, and learning their names. While here I first took an interest in British Ferns, in search of which I made frequent excursions about the neighbourhood, where in those days many fine species as well of Ferns as of British Orchids were to be found. Here, also, I made myself acquainted with the Kentish system of Filbert and bush pruning, there being many hundreds of acres of these under cultivation in the locality.

I left Keventon in 1831 to take the foreman's place at the Retreat, Battersea, where I stayed but six months, when I left to take charge of the gardens of J. Ricardo, Esq., in whose service I remained until his death.

My friend, Mr. William Andrews, Pine and Grape grower, of Vauxhall, then recommended me to A. R. George, Esq., of Ponder's End, into whose service I entered in February, 1S33. The experience I had been gathering up now began to bear fruit, and I exhibited for many years with great success at Chiswick and the metropolitan shows, Pines, Grapes, Roses, and many other things. I also turned my attention to the improvement of various florists' flowers, one of my first achievements being to raise the Dahlia known as Metropolitan Wonder. Great numbers of Pansies raised by me were introduced to the horticultural world by May and others. The Verbena Enfield Scarlet was another of my productions; and I also had considerable success in raising new varieties of Petunias. Later on I made Hollyhocks my chief study, with very satisfactory results—letting out, through Mr. Chater, twelve fine varieties in one season, 1851. My employer died in August of this year, and my unbloomed seedlings passed into the hands of Messrs. Paul, who, I believe, found them to be a very fine lot.

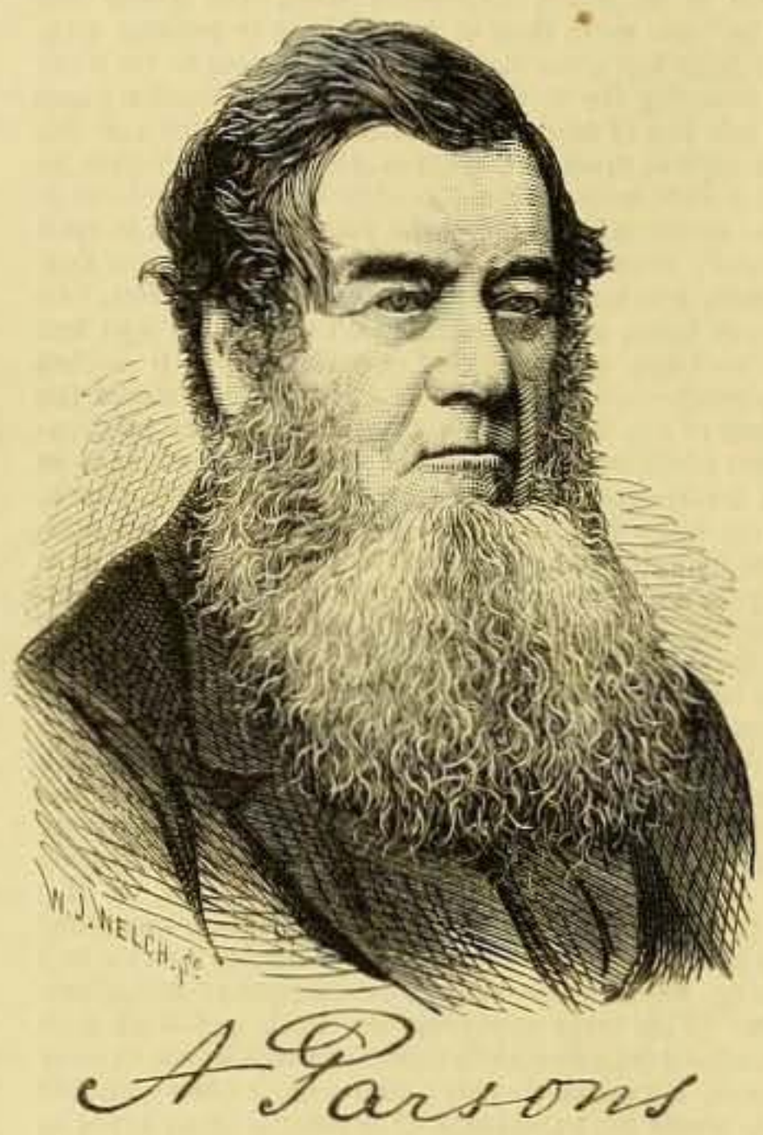
From Ponder's End I came to Danesbury, where I now am. Since I came here I have had to carry out improvements in the pleasure-grounds, involving the making of new roads and of a new kitchen garden, and I have also had to make a hardy fernery, which now contains a magnificent collection of British Ferns, and is well known to many admirers of these truly lovely plants. The Grapes, Peaches, and fruits grown here have always

been of first-rate quality. Nor have florists' flowers been altogether neglected by me since I came here, although I have had much besides to occupy my attention. My later experiments have been with Achimenes, in which I have been eminently successful, having obtained among others Mauve Queen, Aurora, Williamsii, and Fire-fly, which are not yet approached by the production of any other raiser. Besides thus devoting my attention to the improvement of flowers, I have found opportunities from time to time to attempt the amelioration of vegetables, several of which I have had the satisfaction of improving."

method of setting it; for instance, the common upright cylinder is usually placed so that the fire passes up its inner surface only, which—if 12 inches diameter and the outer ring 17 inches—is in the proportion of 40 per cent. of the whole, but if the cylinder is so supported or hung in the fire that the fuel burns all round it, you have the maximum of heating surface, but a great waste of heat against the outer flue walls. 6. I cannot gauge the benefit of hollow fire-bars; they may add to the power of the boiler, but not in proportion to their surface. Many think there should be the greatest difference in the heat of water at bottom and top to ensure a rapid circulation. Their chief use is in utilising the great heat passed into solid fire-bars and by radiation into the ash-pit. 7 and 8 I cannot answer, but which form of boiler does corrode quickest? 9. There will be a quicker circulation in the 2-inch waterway of a boiler than in a 4-inch space, as in the latter you have double the water to heat with precisely the same heating surface; the average is about 20 per cent. more calculated power in a 4-inch over a 2-inch water space. No. 10, I take it, is only Nos. 2 and 3 in another form; but taking it with No. 12 as to flued saddle or similar many-chambered boilers in layers, I would say that the multiplication of these layers is wrong, as the greatest fire-heat is expended on the layer or chamber immediately over it, and the heated water has to force the dead weight of water in upper layers (amounting to over 60 per cent. of the boiler contents in some cases) before it gets to the outlet or flow-pipe much cooler than if taken off at once from the lower layer. The idea is that the flue heat of fire is utilised and not passed directly into the chimney as in most upright tubular forms, but the outer surface of boiler (heated by the hottest water passing up there) is considerably increased, and this surface-heat also passes up the chimney, cooling the water inside immensely at its highest or theoretically hottest point. Now if there is a layer or chamber underneath the fire, and the flue heat passed through or under that, this flue air parts with its heat to the coldest water, and so passes into the chimney almost cold. 11. It is not possible, "regardless of time and fuel consumed," for a one-chambered boiler, with same water contents as a many-chambered one "to produce parallel results," but it is possible for a double-chambered boiler with the same direct heating surface as a tubular to produce parallel results with the same quantity and less quality of fuel. Having gone through the questions *seriatim*, I must say that the first one only can be of use to discuss and settle for a competition—the tendency of the other eleven being to pile up theoretic evidence as to the superiority of one particular form of boiler. If a satisfactory decision as to the best boiler could be arrived at by correspondence, these questions might be of service. I can invent questions of equal moment for a purchaser—the most important person, after all, to consider, such as—Will a boiler, theoretically and practically perfect for quick heating, cost more in first instance, and for after-fuel, and wear out more quickly than one of a simpler make, that is, a small percentage slower in heating its first hundred feet of pipe? If so, which is the more economical? And so on. But assuming that "the proof of the pudding is in the eating," what is the best way to make up the pudding? or, in other words, what are the chief points to decide on as a preliminary to the suggested public trial—the method of measuring or calculating the power of competing boilers so as to apply to all alike uniformly by one fixed and rigid rule? This is the first and most important matter to settle, as without it two makers may say theirs are to heat 1000 feet and no more, while if the same rule be applied to both, one may be only 800 and the other 1200 feet power. Unfortunately for its proper discussion, there are probably not more than three or four engineers (who are also boiler-makers) that will see this paper; and the bulk of manufacturers will not discuss, and yet would not like to have one or two forms of their boilers specially patronised by some engineer beaten by another engineer's choice from a rival manufacturer. If certain conditions can be decided upon, and a committee formed that will print and send them to the chief boiler-makers of the country, asking them to reply as to their concurrence in these conditions, or to state in turn their opinions of the proper basis of measurement, this committee can then report to the gardening papers the definite terms for such competition. As a rule, it will be found that boiler-makers (and some inventors) do not care to compete, having a score or more varieties of boilers that now sell equally well, but which would probably be discarded afterwards. I would suggest that there should be two classes of boilers, one to heat 500 to 600 feet of 4-inch pipe, the other class for, say, 3000 feet, the actual sizes of various forms of boiler being made to fit the standard of measurement to be decided on as to power, and not to have one at 500, another at 1500, and half a dozen others between these extremes, as no rule of calculating and averaging results to decide finally would be cordially accepted. Of course many details will have to be considered ultimately. For the present, if Mr. Deal will give superficial area of direct heating surface, and also the water contents of one of his boilers, say 2000 feet estimated power by his list, and some other firms will kindly give the same for one or two of their specialities, there will be a comparison and basis for discussion as to the safest and most correct uniform rule of measurement. Being an interested person in hot-water heating, I do not wish to advertise my business gratis by appending name and address in full, so subscribe myself simply *Ben*.

## Obituary.

WE have to announce with regret the death of Mr. ANTHONY PARSONS, gardener to Captain Blake, at Danesbury, Welwyn, Herts, which took place, after a painful illness, on December 25. Mr. Parsons had just reached the alloted age of "threescore years and ten," having been born in 1810. He was the son of a small farmer residing at Merton in Surrey, and received his initiation into horticultural ranks at Stanmer Park, near Brighton. In 1831 he became gardener to J. Ricardo, Esq., and in 1833 was engaged by A. R. George, Esq., of Ponder's End, shortly after which we find him entering the lists at the various horticultural exhibitions, and winning many prizes at Chiswick and other metropolitan




shows. Here he took up the culture of florists' flowers, raising many new varieties amongst the Dahlias, Pansies, Verbenas, and Petunias of that day. Later on he made his mark as a raiser of Hollyhocks, "letting out through Mr. Chater twelve fine varieties in one season—1851." After the death of Mr. George in 1851 he removed to Danesbury, where he well sustained his reputation as a first-class practical gardener, and where besides other improvements he constructed an extensive and picturesque hardy fernery, which was stocked with a magnificent collection of these lovely plants.

At Danesbury his *penchant* for the improvement of cultivated plants found expression in the raising of new Indian Azaleas and Achimenes, and he was successful in originating some fine new varieties of British and other Ferns, one finely-crested dwarf golden Fern of his origination being named in his honour Gymnogramma chrysophylla Parsonsi.

Through his early experiences in the growth and improvement of florists' flowers, he became one of the best Southern judges of these flowers; his keen appreciation of merit as developed amongst his seedlings, made him an excellent arbitrator of the merits of new plants; and his own proficiency as a cultivator taught him how to estimate the cultural merits of the exhibits set before him. These combined qualities constituted him one of the soundest of the judges engaged at the various metropolitan shows, and for many years past, down to the present time, his services in this capacity have been constantly in requisition. As a frequent colleague in the performance of these onerous duties, we may truly say of him that we have never met with a more straightforward, honest, and intelligent judge of the merits of horticultural productions generally. Latterly, from his failing health, he has been a less frequent attendant at our London shows and meetings than was once his wont. He was a sound practical gardener of the old school, and in the memoir accompanying his portrait published in our volume for 1875, and here reproduced, he has remarked that besides devoting attention to the improvement of flowers, he has found opportunities from time to time to attempt the amelioration of vegetables, "several of which," he says, "I have had the satisfaction of improving." *M.*

## Forestry.

ORNAMENTAL AND SHELTER PLANTING.—Now is the planting season, and time should be taken by the forelock for its execution, for it is often matter of deep regret that season after season is allowed to pass without the desired work being overtaken, and this applies even more to ornamental than to plain and profitable planting. Besides the value and importance of forest trees in many other ways, there is the shelter, beauty, and richness manifested in endless variety, and no landscape would please the taste of the man of culture and refinement without having in its composition trees of some kind. The wide and expansive area and comprehensive landscape requires its forest subjects to be in keeping and proportion with its conformation and extent. It is quite possible and not at all uncommon to have too many trees in the landscape, and where their distribution is in the form of lines, rows, and single trees, it is quite easy to see how the whole district may be made to assume the general appearance of one vast straggling wood or plantation. General mixing, like general distribution of trees, is a subject which requires more attention than is generally bestowed upon it. What should be aimed at is distinctness and well-defined features in the various aspects, without formality or stiffness. The trees should not be so distributed as to present an irregular, undefined, and incomprehensible mixture, either of species brought together or in the distribution and arrangement of the trees upon the ground. One thing that often leads to corruption and disfiguration of the landscape is the manner and form in which the planting is originally done. I know Abbotsford well, a place the most historical in Scotland on account of its once celebrated proprietor, which, although originally laid out with the best possible skill and taste, under the guidance and direction of the greatest of poetical and literary geniuses, is now altogether irregular and incomprehensible. The mistake was easily made, and is repeated daily by others. It consists in not calculating to what height and proportion the trees will attain when mature and full grown. In planting shrubs or trees which bear cropping and keeping in subjection, there is little hazard or likelihood of going wrong, because in such cases the means of cure are kept in hand. If the shrub rises too high it can be headed-back, and if too broad it can be reduced to the desired circumference. With medium-sized trees, as the Hawthorn, Laburnum, Mountain Ash, and small-leaved Maple, &c., a similar mode of treatment may be applied without prejudice. Where the fields are small and the whole domain of circumscribed and limited extent, the whole arrangement and distribution of the trees should be in proportion. Where the villa garden, paddock, and pleasure ground are all comprised within a small area it is often under such circumstances found necessary to plant medium instead of primary forest trees. By doing this the same effect is produced as by large trees in an extensive domain. Attention should also be paid to the distance the trees are planted from the garden walls, the mansion or dwelling, or to any other object with which they might interfere when grown up, and in no case should a tree be so planted, that in case of a gale blowing it down it would fall upon an edifice or at least a human habitation. The north and east sides of a house and premises should always be well planted, so as to afford the greatest amount of shelter, and the west and south sides should be left open to the sun. This in all planting should be adhered to, and the cases are extremely rare and exceptional where the rule should be departed from. The kinds or species

**PARSONS Anthony.**

Personal Estate under £1,000.

14 January. Administration of the Personal Estate of Anthony Parsons late of Welwyn in the County of **Hertford** Gardener a Widower who died 25 December 1880 at Welwyn was granted at the **Principal Registry** to Frederick Anthony Parsons of 25 Great-Percy-street in the County of Middlesex Gentleman the Son and one of the Next of Kin.

**PARSONS Caroline.**

Personal Estate under £100.

1 April. The Will of Caroline Parsons late of 87 Ashton-road Oldham in the County of **Lancaster** Spinster who died 12 February 1881 at 87 Ashton-road was proved at **Manchester** by Edward Lees of 350 Manchester-street Werneth Oldham Mechanic the sole Executor.

**PARSONS Charles.**

Personal Estate £6,618 8s. 5d.

24 June. The Will of Charles Parsons late of Lewes in the County of **Sussex** Stone Mason who died 30 April 1881 at Brighton in the said County was proved at **Lewes** by Charles Parsons of 34 Alderney-street Pimlico in the County of Middlesex Barrister-at-Law the Son Latter Parsons of Lewes Timber Merchant and Hannah Parsons of 11 East-street Lewes Widow the Relict the Executors.

**PARSONS Charles Walter.**

Personal Estate under £1,500.

31 May. The Will of Charles Walter Parsons late of Sutton Coldfield in the County of **Warwick** who died 17 March 1881 at Sutton Coldfield was proved at **Birmingham** by John Barnard Jackson of 8 Legge-lane Birmingham in the said County Jeweller one of the Executors.

**PARSONS Charles William.**

Personal Estate under £3,000.

24 January. The Will with a Codicil of Charles William Parsons late of Austrey in the County of **Warwick** Gentleman who died 31 May 1880 at Austrey was proved at **Birmingham** by Catharine Elizabeth Parsons Widow the Relict (during Widowhood) and Samuel Brookhouse Averill Farmer both of Austrey John Lea Jennings of Tamworth in the County of Stafford Wholesale Grocer and Druggist and John Stratton of Clifton Lodge in the Parish of Clifton Campville in the County of Stafford Farmer the Executors.

**PARSONS Christopher.**

Personal Estate £100.

25 July. The Will of Christopher Parsons late of Dodmarsh in the Parish of Westhide in the County of **Hereford** Gardener who died 11 May 1881 at Dodmarsh was proved at **Hereford** by Elizabeth Parsons of Dodmarsh Spinster the Sister and Matthew Parsons of Burghill in the said County Gardener the Brother the Executors.

**PARSONS Eliza.**

Personal Estate £200.

2 March. The Will of Eliza Parsons late of 16 Somerset-street in the Parish of St. James Bath in the County of **Somerset** Widow who died 19 January 1881 at the "New" Inn Southgate-street Bath was proved at the **Principal Registry** by Frederick Moody of 1 Somerset-street Bill Poster the sole Executor.

**PARSONS Elizabeth.**

Personal Estate under £800.

19 May. The Will with a Codicil of Elizabeth Parsons late of Clevedon in the County of **Somerset** Widow who died 15 February 1881 at Clevedon was proved at **Bristol** by Thomas Wall and William Durant Frost both of Clevedon Gentlemen the Executors.

**PARSONS Esther.**

Personal Estate under £100.

16 May. The Will of Esther Parsons late of 127 Bishop's-road Victoria Park in the County of **Middlesex** Widow who died 21 April 1881 at 127 Bishop's-road was proved at the

of the same variety, when grown in different soils, often differ enormously in flavour. If they do not also differ when supplied with different food, the reason must be that their chemical composition is practically constant. Another correspondent who inquired about the value of salt was informed that "at the rate of five hundred-weight per acre it is excellent

MR. W. PASCOE.

for Potatoes on light or fairly light land, and may be put on broadcast in March, or immediately after planting." Salt, like nitrate of soda, has the property of absorbing moisture from the atmosphere, and in its property has its chief value on light soil. By the way, absorbent fertilisers of this class should not be used for pot plants in winter, for at that season the amount of moisture in the greenhouse should be reduced to a minimum.

**A Word Picture.**

December 12th.—As the year draws to its close, the cold weather drives many of us to the fireside, and we are apt to ignore the beauties of the country in winter. Yet the play of sunlight and shadow on the distant hills, the delicate tracery of the leafless trees, and the dark green masses of Conifers make up a picture of wonderful charm. Now it is silvered by a touch of frost, now whitened by a fall of snow; there is not less variety than in summer—perhaps even more. The very cobwebs which form a dainty lacework over every bush add to the beauty of the scene. There are no flowers, it is true, but we do not miss them. They would be out of harmony with the surroundings. Colour plays its part in winter effects only in a minor degree, and in subdued tones; form is the chief factor. Trees are no longer masses thrown up against the sky; we see them resolved into their components, and very beautiful they are. The details thus laid bare are well worth studying, for in that way we can learn how Nature works up her effects.

**The Blackthorn.**

December 13th.—A few weeks ago I came across the statement that if sprays of the Blackthorn were cut early in the year and placed in water in a warm room, the flowers would open and would last for a long time. This is worth trying. Flowers are scarce at this season, and good sprays of the Blackthorn, when well arranged in a vase, are very effective. Of course, sprays carrying a considerable number of flower-buds should be selected for the purpose, but this is easy enough to do, the flower-buds being plumper and rounder than ordinary wood-buds. I believe the Apple, Pear, Cherry, and almost any other tree or shrub which forms its flower-buds in the previous autumn may be treated in the same way. Probably few would care to cut their fruit trees merely to get flowers, but there are plenty of wild Cherries to be found in the woods. In the days before we drew so largely on warmer countries, I wonder how people managed without flowers in winter.

H. C. DAVIDSON.

# A Famous Alpine Garden.

INTERVIEW WITH MR. W. PASCOE, AT BASTON MANOR GARDENS, HAYES, KENT.

IT is about twenty years ago that the late Captain Alfred Torrens, of Baston Manor, first thought of forming an Alpine garden. Captain Torrens was a well-known member of the Royal Horticultural Society, and attended the fortnightly meetings regularly. From the outset he personally took the greatest interest in the carrying out of his scheme. In those days, rock gardens were rare in Kent, and there was not one in the vicinity of Hayes. Assisted by his head gardener, Mr. Pascoe, Captain Torrens succeeded in his work, but since the Alpine garden was first made there have been many additions to it, so that it now contains, even in these days of the increasing cultivation of rock plants, a very large and representative collection of varieties. When I visited the gardens at Baston Manor, by the courtesy of Mrs. Torrens, during the second week in October, Mr. Pascoe expressed his regret that it was too late to see many of the Alpines in flower, but when we presently proceeded to the rockery, I found that several were still in bloom. Passing on our way the fine conservatory, near the Manor House, which, by the way, stands in a fine position, facing Hayes Common, we paused to look at the Chrysanthemums, which, in pots in the centre, made an extremely attractive group.

"There are three hundred in pots," said Mr. Pascoe, "the pots being of varying size, from 'forty-eight's' to 'sixteen's.' The varieties, with most of the newest Japs, include Buttercup, Charles Curtis, Souvenir de William Clibran, Charles Pacque, Hanwell Glory, Mrs. Judson, Mrs. Hooper Pearson, Elsie Fulton, and Mrs. A. Miller. The border, as you see, is made up of Kochias and Ferns, purple and green, while on the side stages are Solanums and Incurved Chrysanthemums, dotted with Lilies. The Roses on the roof of the conservatory—which came from the Crystal Palace exhibition in 1851—are Cheshunt Hybrid and Niphetos."

BASTON MANOR, HAYES, KENT.

Entering the flower garden, which slopes from the house in picturesque fashion, and is highly artistic in appearance, I noticed a remarkable specimen of a variegated Holly and Yew combined. The Yew, it seems, was planted first, about a century ago, and then the Holly. Close by, on the wall, and still in flower, was an excellent specimen of Ceanothus Gloire de Versailles, while here, too, Forsythia suspensa thrives. But my attention was speedily diverted to the main feature, the Alpine garden, on which so much care has been lavished, with such good effect.

Before I began to ask questions respecting the numerous varieties, Mr. Pascoe mentioned an incident upon which he naturally looks back with satisfaction.

"We flowered as an Alpine," he observed, "and for the first time in England, Schizocodon Soldanelloides, and sent a plant to Kew, receiving three first-class certificates for this rare and beautiful variety. The plant was brought from the Sulphor Mountains in Japan by Captain and Mrs. Torrens, when they were travelling round the world, and it was afterwards hand-painted by Mr. Robinson. The flowers are of a soft rose colour, delicately fringed."

"Can you tell me the extent of the Alpine garden?"

"It is twenty-four yards wide by twenty yards long, and there are upwards of four hundred varieties planted in it."

"Which are the principal plants in flower now?"

"Rock Cistes (red and yellow), Saxifraga tunica, Armeria cæspitosa (rosy-pink), Linaria alpinus, Polygonum Brunosis (rich brownish-crimson), and Aponogeton distachyon. Then, on the rocks, are Aubrietia Dr. Mules and A. græca, Hypericums, Scabiosa parnassia (lilac), Campanula garganica (bluish-purple, white-eyed), Erysimum pulchella, and a number of others."

"You might tell me the names of some of the most notable not in flower."

"Ramondia pyrenaica and R. Nathaliæ are two; the former is a very interesting Alpine, with flower-stems three to six inches high, which bear a number of violet-purple blossoms. Haberlea rhodopensis, which has a similar habit, has lilac-purple white-throated flowers."

"Is the Sempervivum family well represented?"

"Yes, very well indeed. Among the best varieties are S. arachnoideum, S. Powelli, S. Illioni (which is very rare), and S. Count de Cronji. One of the most rare of the Saxifrages is Macnabiana, a hybrid, with loose panicles of white, heavily-spotted flowers."

"And other Saxifrages?"

"There are several of S. apiculata (which has primrose blossoms in early spring), S. Burseriana (which is the earliest of all, and one of the most beautiful), S. Valdensis (snow-white flowers), S. lantoscana superba (whose flowers are also snow-white), S. rosularis, S. aizoon, and S. pectinata.

"Among the best of the latest-flowering Alpines," continued Mr. Pascoe, "are Plumbago larpentæ, a deep blue flower, and Zauschneria californica, which has showy scarlet tubular flowers."

**Some Rare Plants.**

"Which do you consider the best Campanulas?"

"C. muralis (which is still in flower), C. abietina, C. G. F. Wilson (dark purple-blue), C. pusilla, and C. pusilla alba. The Sedums, of which there are many varieties, include S. obtusatum and S. spathulifolium. A somewhat rare plant, requiring moist peat and grit, is Arctostaphylos alpina, and among others worthy of note are Chimaphylla maculata, Chrysoplenium oppositifolium, Claytonia caroliniana, Cornus canadensis (a dwarf, creeping species, with white flowers), Dalabardia repens, Daphne cneorum, Dondia epipactis (an early and attractive variety), Draba aizoides, Edraianthus serpyllifolius (brilliant dark purple flowers at the extremities of wiry, prostrate stems), and Galax aphylla (with bright red leaves in autumn)."

"Do many of these varieties require peat soil?"

"Some of them, such as Galax, which also requires shade. On the other hand, Gaultheria procumbens requires sandy soil; it is also a good variety for shady banks. This should be grown in sandy loam, as also should G. argenteum, with silvery leaves and white flowers, veined with purple. Others of the best varieties are Globularia cordifolia, Hutchinsia alpina (snow-white flowers), Hypericum egypticum, Lippia repens (small pink flowers), Lithospermum prostratum (deep blue flowers), Oxalis enneaphylla (flowers pure white, resembling a Convolvulus), Sanguinaria canadensis (snow-white flowers, an inch or more across), Shortia galacifolia (blossoms large, bell-shaped, purplish-white, rising from tufts of deep green), Thymus azoricus, and Vaccinium vitis-idæa (evergreen, Box-like foliage)."

"Then I see you have a large pond, with Water Lilies, forming a part of the Alpine garden?"

"Yes, and it contains some very good varieties of Nymphæas, one of which is William Falconer, which bears red flowers, others being N. Marliacea chromatella (sulphur-yellow), N. Robinsoni (purplish-red), and N. Laydekeri albida. The Alpine Strawberries, which you see growing in profusion, came direct from the Alps.

ANOTHER VIEW IN THE ROCK GARDENS AT BASTON MANOR, HAYES.

As we are speaking of Alpines, a great point is that care should be taken in the choice of a position, some needing to be exposed to the sun as much as possible, while others flourish in the shade."

"You are very particular, I judge, with regard to your labels in the Alpine garden?"

"They are made of a small piece of lead, the letters being stamped in with white paint; this makes them everlasting."

**A Wonderful Wistaria.**

"But now, I think, we must devote attention to some of the other features of your charming garden, beginning with the pergola over the swamp at the bottom of the Alpine garden."

"The Wistaria sinensis prospero on that pergola was grown forty years ago in a pot in Japan, and brought to England twenty years later. The second year after it came here I obtained for it a certificate of commendation from the Royal Horticultural Society. One feature of the flower garden is that flowers have been planted over fruit trees, as, for instance, a Crimson Rambler Rose over an old Cherry tree, a Clematis montana over another Cherry tree, and a Honeysuckle over an Apple tree. By the way, the Apple trees on the lawn include Lane's Prince Albert, Ribston Pippin, Cox's Orange Pippin, Royal Russet, and Beauty of Kent, and we get very good crops."

"Have you any special varieties in your herbaceous borders running each side of the lawn?"

"Early in the season we get a fine show of herbaceous Pæonies, and the Rudbeckias (grandiflora), of which we obtained a plant from Kew, are rather exceptional. Other varieties include Scabious, Pentstemons, Monbretias, Michaelmas Daisies, Antirrhinums, and Stocks. Behind one of the borders is a row of Scotch and English Laburnums, which yield a quantity of beautiful blooms. But on the lawn the beds and single specimens of Tree Pæonies are perhaps the most notable feature."

**Fine Tree Pæonies.**

"How many do you grow?"

"About a hundred, in twenty-one varieties, white, pink, black, red, and other colours. They are at their best in May, when the flowers are as big as a crown of a hat. We have had them for fifteen years, and I prune them back to a prominent bud. Tree Pæonies are gross feeders, and I give them in November four inches of cow-manure, which I dig in during the spring. They want to be in a sheltered spot, because if the frost catches them they are soon injured."

"You have still a number of Roses in flower."

"Of course, our climbing Roses are over, but in the season we get an enormous quantity of blooms on the pergola, from Crimson Rambler, Dorothy Perkins, and Carmine Pillar. There are three beds of Hybrid Perpetuals, with a hundred in one of twenty-five varieties, two hundred in another of twenty-five, and a third with forty varieties, one of each. These beds contain all the best Roses, those now in flower including La France, Sunset, Viscountess Folkestone, A. K. Williams, Frau Karl Druschki, and Gruss an Teplitz. Speaking of Roses, you might mention the specimen of Coup d'Hebe, a pink variety, trained as an umbrella; it was planted sixty years ago, and the stem is eighteen inches round. It bears an enormous mass of flower, the result, possibly, of the dose of cow-manure which is given in the autumn. Eight or nine years ago I planted clumps of Lilium auratums and lancifolium alba in tubs, and sunk them in the lawn. They flower every year, sometimes bearing as many as twenty-five blooms."

**The Bedding on the Lawn.**

"How are the ten beds of various shapes on the lawn made up?"

"The first with tuberous Begonias, and Pyrethrums (Golden Feather); the second with Geraniums (King Edward VII. and Madame Seleris, variegated); the third with Begonias (semperflorens grandiflora), with a groundwork of Kœniga maritima; the fourth, white Verbenas and blue Lobelias; the fifth, scarlet Begonias and Kœnigas; the sixth embraces five beds made up of Coleus, scarlet Verbenas, Geraniums (Madame Crousse), and a border of Centaurea; the seventh consists of scarlet Lantanas and Pyrethrums; the eighth, Begonias (Sutton's Coral Pink) and Sempervivums; the ninth, yellow-leaved Geraniums and no border; and the tenth, Heliotropes (Miss Nightingale) mixed with variegated Abutilons. The object in view, of course, is to obtain contrast of colour, and we follow this out in the spring."

"What is your scheme of spring bedding?"

"There will be one bed of Tulips (Cottage Maid) and double white Arabis; one bed of blue Myosotis and Golden Crown Tulips; and one bed consisting entirely of Violas—J. Cuthbert, a rayless, yellow flower, which smells like a Sweet Pea."

"Does it last long in flower?"

"It will last practically all the year round. It is a great favourite with us, and I have two hundred and fifty plants at the present time potted up for bedding-out. The rest of the spring bedding will be two beds of Wallflowers (yellow and blood-red), two beds of Alyssum and Golden Gem Calceolarias, and two beds of white and blue Hyacinths."

**Dahlias and Carnations.**

Passing the pond at the end of the flower garden, with beds of Iris Kæmpferi on the banks, we went into the kitchen garden, and I asked Mr. Pascoe to point out anything special, as the garden embraces not only fruit and vegetables, but many flowers.

"Dahlias," he replied, "are grown in quantity, and include some of the best decorative varieties, such as Gustave Gruzon (the largest scarlet, which I have grown for three years), H. J. Jackson (purple Cactus), Khaki, Snow Queen, and Coronation (another fine scarlet). Among the Violets, of which there are six lights, I am growing Cyclops this year, for the first time; it is a single, with a double centre. As you can tell from this first flower, it is a very unique Violet. In a border devoted to Carnations, we grow most of Mr. Martin Smith's varieties, and one of my own seedlings, A. A. Torrens. Just below the point is the seats ground, called Plevna, because it was made at the time of the battle. You might mention here that I have four hundred Carnations in pots for planting out, and two hundred Cinerarias (Sutton's Prize) in pots in frames."

**Fruit and Vegetables.**

"You ought to say something about the fruit—Pears, for instance."

"The Pears, which are chiefly espaliers, with a few pyramids, include Louise Bonne of Jersey, Doyenné du Comice, Clapp's Favourite, Marie Louise, Jargonelle, and Pitmaston Duchess. The Peaches on the walls are Royal George and Sea Eagle. Of Strawberries, we use Royal Sovereign both for forcing and outside work, the other varieties being Paxton, Leader, and Louis Gautier."

"Is the soil good for fruit?"

"It is all gravel and sand, and our difficulty is that it dries up so soon, but, as you can see, it suits many vegetables, such as Scarlet Runners, of which we have a hundred yards, the variety being Sutton's A1. Lettuce is grown all the year round, and does extremely well in 'forty-eight' pots, the variety being Sutton's Golden Queen. We also grow from four to five hundred plants of Endive. The principal variety of Celery is Sutton's Sulham Pink, of which we grow nine rows. We start digging at the end of October, and keep on till March. Of Peas we grow from about sixteen varieties, and we make rather a feature of Asparagus, which in 1905 I commenced cutting on March 29th."

**The Houses.**

"Now, with regard to the houses?"

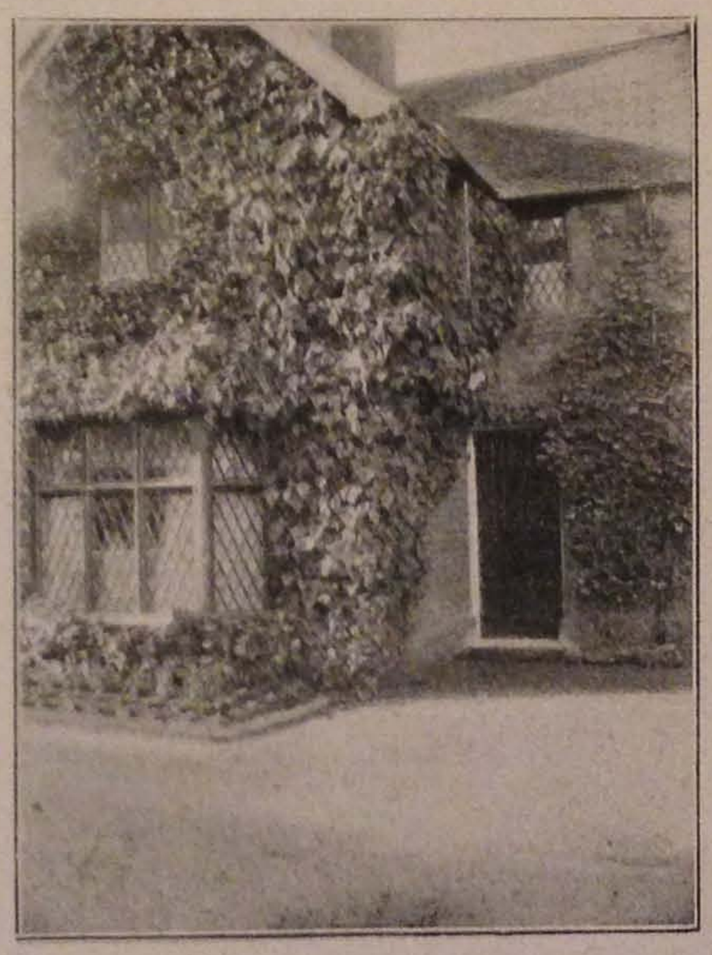
"We have not much glass, but in one of the houses there is a good collection of double Pelargoniums, the French varieties, and we also grow a hundred and twenty plants of Schizanthus—Wisetoniensis and Sutton's Dwarf Hybrid. They were four feet through last year, and flowered from April until June. We give them cool treatment. The Geraniums now in flower in another house are Mrs. Norman, Barbara Hope, Lord Wolseley, Lady Brooke, R. A. de Lesseps, Mary Clark, and Lady Curzon."

"I see you have more Japanese Chrysanthemums in the Peach-house."

"We grow altogether five hundred and fifty Japanese and Incurves. There are some Chrysanthemums also in the Muscat house, including Jumbo (a fine old Japanese variety, ten feet high), and General Hutton. Outside the Vinery are a number of hardy Chrysanthemums, such as Market White, Ralph Carter, Carrie, and Madame Desgranges."

Returning to the gardener's pretty lodge, we spent a little time in the shrubbery, where Rhododendrons are in great force, from the best hybrids to the common ponticums. But my time was drawing to a close, and, having admired two very fine Cedars of Lebanon, planted by William Pitt in front of the historic residence, I asked Mr. Pascoe to tell me a little about his own experience.

"I started," he said, "as garden boy at Mr. Goodhart's, at Langley Park, and was there four and a half years. After that time I went to Mr. Gladstone's, also in Langley Park, and was there for four years. Then I came to Baston as under-gardener. I left here after a time, and went to Rosenburgh, Beckenham, as gardener, with one under me. I was there for three years. After that I came back to Baston as head gardener, and have been here twenty-nine years next May. Since then I have done a good deal of showing at the Bromley Chrysanthemum Show, as well as judging at other shows. I won two silver cups at Bromley, and a number of money prizes for Japanese and Incurves."



THE GARDENER'S LODGE, BASTON MANOR.

"I conclude, from what I have seen this afternoon, that Alpines are your particular love?"

"Yes, that is true; but I am also very fond of plant-growing in general. I think, too, that wall gardening is very pretty work. I have just made a start in that direction, and am growing Ramondias in variety on the top of a wall. There is no doubt that walls might often be turned to good account and made quite attractive by the choice of easily-grown varieties."

ALFRED WILCOX.

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IT is said that no less than £25,000,000 worth of Tobacco has been grown in the State of Pennsylvania alone during the last fifty years.

A DISH of Peas, of the variety Gladstone, was gathered on November 16th in the gardens at Benthall Hall, near Broseley, Staffs.

THE beautiful Eucalyptus ficifolia, of which the fluffy blossoms are bright scarlet, has flowered in the open air during the past summer, in the garden of Cove House, Tiverton, Devon.

## Pruning Flowering Shrubs.

THE advantage of properly pruning shrubs is to keep them within bounds, which is an important matter in gardens of limited extent, while, by the removal of useless wood, the yield of blossom is greatly increased. Too often the work is carried out in such a manner as to result only in the production of a dumpy bush, with no prospects of blossoms.

Now, in the first place, the majority of our deciduous shrubs make their flower growth one year and bloom the following; therefore, it is evident that if cut back in the winter, most of the next season's display of flowers will be lost. Among these are the Lilacs, Deutzias, Ribes, Viburnums, Philadelphuses, etc. As soon as their flowers are over is the proper time to prune these, and this should be carried out by cutting away old and exhausted shoots, leaving room for the young and vigorous ones on which the following season's display depends. Spiræas, for instance, push up their fresh growths from the base of the plant; therefore, all exhausted shoots should be removed directly the flowers are over. Forsythias, treated as open bushes, will send forth shoots five or six feet long in one season, which will flower profusely the next.

The hybrid forms of Philadelphus, all of which flower about midsummer, can be treated almost the same as a herbaceous subject, that is, if nearly all the old shoots are cut way, the young ones will develop rapidly and flower freely next year. With the Cherry and Plum family, while young, some cutting-back in winter will be necessary to obtain a shapely specimen, but once this is obtained, all that is required is a little thinning-out of exhausted wood, and spurring back a little when necessary. All the ornamental kinds of Pyrus should be kept in shape by summer-pruning. The popular Pyrus japonica and its varieties, however, make a mass of thin, weak shoots, which would not flower unless a rigid thinning of them was carried out.

**Subjects for Winter Pruning.**

There are, however, many deciduous flowering shrubs that can be winter-pruned, as, for instance, Hydrangea paniculata grandiflora, which, while resting, and before any growth starts, is greatly benefited by having the weak shoots removed and the strong ones cut back to two or three eyes from the base. The result of this will be the production of plenty of flowering shoots, which, if huge heads of blossom are aimed at, must be considerably reduced in number. In my opinion, however, a more pleasing object is a specimen with numerous heads of a normal size. Ceanothus and its numerous garden varieties all flower on the young growth, so may be cut back to within two or three eyes of the old wood.

Desmodium pendulifolium may be treated much in the same way, and most of the Hypericums, the newer Asiatic Buddleias, and, in fact, all shrubs that die back naturally a good deal in winter. In many gardens there are shrubs that have been neglected for years, and have become a mass of long, thin branches that never flower. The Lilac, for instance, is very liable to this when neglected. In this case, another kind of pruning may be carried out—which is of a drastic character—by removing all the old wood, and shortening back the young shoots it is decided to retain. This will give the specimen a new lease of life, although a season's display, perhaps two, may be sacrificed. Another thing, with the Lilac it is most important that the numerous suckers that push up from the root are cut away. In conclusion I may say this by no means exhausts the subject of pruning deciduous shrubs, but no doubt the foregoing will be somewhat of a guide to the inexperienced.

F. H. H.

on them? Personally, I like to see them not merely "studded," but actually covered.

**The Barberton Daisy.**

May 27th.—Among the plants which I have been trying in the border is the Barberton Daisy (Gerbera Jamesoni). A native of the Cape, it was scarcely likely to be quite hardy in this country, and I am afraid that it is not—at least hereabouts—for my plants have disappeared. No doubt, the winter was exceptionally trying, but if a border perennial, to be really useful, must be able to endure any of the vicissitudes of weather which it is likely to experience in this climate. It is a pity that the Barberton Daisy cannot do so, though, in a mild winter and dry soil, ashes over the crown seem to be a sufficient protection. It is undoubtedly a fine plant, the flowers very beautifully and strikingly coloured. There are quite a number of new varieties, and though none of them is superior to the type, they are excellent for grouping with it.

**A Wise Advocate.**

May 28th.—I am glad to see that Mr. Charles Thonger, in the "Book of the Cottage Garden," expresses his disapproval of growing Roses in beds by themselves. "One of the worst features of Rose growing," he says, "as usually practised, is the bareness of the earth surrounding the trees and bushes. To see the majority of Rose gardens, one would suppose that the Queen of flowers was a fragile weakling, which would speedily be choked out of existence if other plants were allowed anywhere in its neighbourhood. Possibly, too, the craze for winter mulching has something to do with it; anyhow, we nearly always find that dull patches of naked earth, or, worse still, unsightly layers of manure and litter, are the backgrounds against which the brown shoots and fragrant blossoms are displayed. This is the way of the nurseryman and the prize hunter, but no one who cares for flowers for their beauty in the garden will think of sacrificing general effect for the sake of a handful of show blooms." So he advocates covering the surface of the beds with dwarf plants such as Violas, and there cannot be much doubt that he is right.

**A Beautiful Spring Edging.**

May 29th.—Certainly, Alyssum saxatile as a spring edging would be hard to beat. It may be used either with or without stones or tiles, untidy for a time, but that is the only trouble it gives. Plants may easily be raised from seed, and in a couple of years it forms a thick edging.

H. C. DAVIDSON.

MR. A. T. PASKETT, F.R.H.S.

# The Gardens at Burrswood, Groombridge.

INTERVIEW WITH MR. A. T. PASKETT, F.R.H.S.

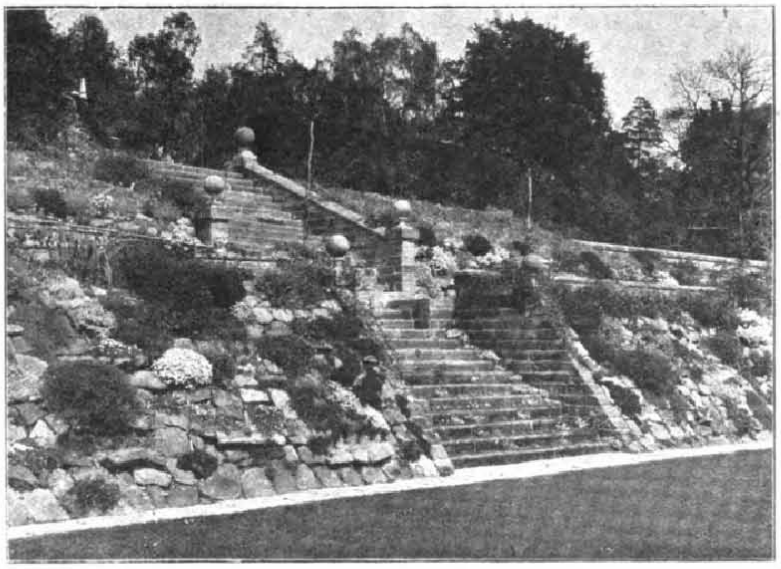
SINCE Mr. E. J. Johnstone purchased the Burrswood estate, four years ago, there has been a remarkable development of the pleasure grounds attached to the beautiful mansion, and, indeed, of the whole of the gardens. Mr. Johnstone is himself an enthusiastic gardener, whose appreciation is the more valuable because he understands and takes the keenest interest in the science of horticulture. When I visited his gardens at the end of April, he gave me a most cordial welcome, and spent some time in the Carnation houses, which are one of the attractions of Burrswood. But there are many other features at Burrswood, and these, soon after my arrival, Mr. Paskett, the head gardener, afforded me the opportunity of inspecting. The fine display of naturalised Daffodils and Narcissi on either side of the pretty drive from the entrance at Groombridge prepared me for masses of colour. And, as I soon observed, this principle is steadily maintained in all parts of the gardens, beginning on the terrace.

"In spring, as you see," said Mr. Paskett, "the main bedding here consists of Myosotis (Sutton's Royal Blue), and white, yellow, and orange-red Tulips; and the borders of Myosotis with white Violas and blood-red and yeilow Wallflowers. In summer, Heliotropes (Lord Roberts) are massed in the beds."

**Roses—Roses Everywhere.**

"Do you mass your varieties in the Rosery on the slope to the right of the mansion?"

"Yes, but the varieties are mixed. The large bed in the centre is pure white; the four outside beds are blush or flesh colour; the four inside are red. Then, there are four borders, one of Charles Grahame, and others of Mrs. W. J. Grant, Caroline Testout, and C. B. Clarke. The Rambler on the arches is Leuchstern. The varieties massed in beds are Madame Abel Chatenay, Dean Hole, Viscountess Folkestone, Richmond, Liberty, Captain Hayward, Frau Karl Druschki, and Lady Battersea. The long border under the terrace is all Roses, and, on the walls behind, each pillar is filled with Roses. Then, there are Roses in other beds and borders, Rose bushes for cutting, and climbing Roses on pergolas."



TERRACE STEPS, LEADING TO THE LAWN AND ROCKERY, AT BURRSWOOD.

"Practically, 'Roses, Roses everywhere'?"

"As far as possible. Amongst the other favourite varieties are Madame A. Carriere, Emerald Gem, Aglaia, England's Glory, Queen Alexandra, and Alberic Barbier."

"And the climbers on pergolas and walls?"

"They include Blush Rambler, Bouquet d'Or,

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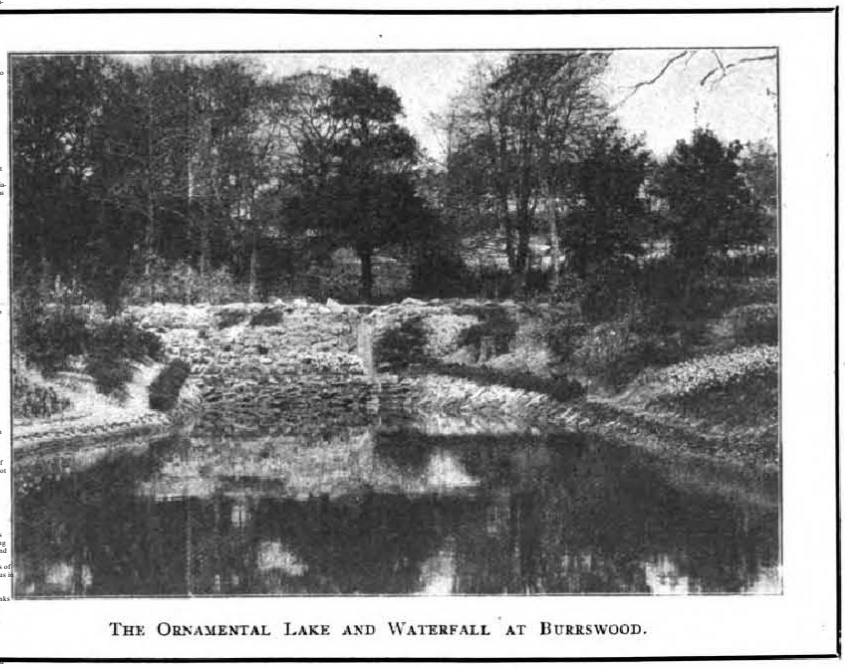
Crimson Rambler, Dorothy Perkins, Euphrosyne, Fortune's Yellow, Pink Roamer, Pride of Waltham, Souvenir de la Malmaison, Una, and Waltham Rambler."

### A Display of Stocks.

Noticing beyond the Rosery a large aviary with a representative collection of foreign birds in which Mrs. Johnstone is greatly interested, a border of Rhododendrons, and a Sweet Brier hedge, and that on the mansion are Ampelopsis, Magnolias, Jasminums, Bignonias, and Wistaria sinensis and rosea, we proceeded to the terrace walks on the south side. Here a striking feature was a long border of double Stocks in flower, massed in their colours, flesh, dark rose, white, purple, bright red, and pink. In front were Myosotis and white Violas, and Mr. Paskett said that later on English Irises would be a feature.

Passing down the slopes towards a lawn of splendid size and in the most admirable condition, I asked if any portion had been recently added, and Mr. Paskett replied,

"All this part from the terrace was a field



THE ORNAMENTAL LAKE AND WATERFALL AT BURRSWOOD.

years ago. The slopes are natural, and we made a batter wall to hold the soil for the rock plants. On the bank are Clematis montana and flammula, and Rock Roses massed in their colours; they stand the heat well. Below are the Alpines, the plants, all in pockets, embracing hundreds of varieties. They flower from the beginning of the year until November in succession of blooms for quite nine months. On the banks above are Azaleas ponticum and the hybrid A. mollis sinensis; also May-flowering and Darwin Tulips, with herbaceous plants in their classes.

"How do you manage to keep up such a wonderful succession?"

"Partly by means of the abundant supply of water from the reservoir."

And here Mr. Paskett turned on the water from the pipes, with the result that in two or three minutes the Alpines had received a drenching.

"You have a number of flowering shrubs in the border on the other side of the lawn facing the wall and the mansion?"

"A great number, planted largely in clumps. Speaking of clumps, the border includes five of Anchusa italica (Dropmore variety), about a hundred in a clump; and large clumps in front of the shrubs of Darwin Tulips, quite forty varieties, in every shade of colour."

### The Wild Garden.

Passing several clumps of flowering shrubs, a large bed of Lupinus polyphylla rosea (the new large variety), massed underneath in spring with Myosotis, and a long border with several hundred Delphiniums, Verbenas, Deutzias, and Weigelas, we entered the new wild garden. This is a most attractive feature, and laid out with great taste and effect. There are three lakes, one above another, with two waterfalls, the latter being planted with Alpines, and everywhere, including the banks of the lakes, are flowers and shrubs in masses. I suggested that Mr. Paskett should point out some of the most popular of these.

"I will mention them as we go along. Here at the entrance are beds of Anemones, sixty varieties, all massed in their colours. To get the best flowers we thoroughly trench the ground, treating it with spent manure and decayed leaf-soil. Anemones should not be planted too deeply. Then all the way down this long walk are Roses in pairs, with a big border of Montbretias mixed with Nepetas, and large clumps of Gladiolus Childsii and Gandavensis. Beyond are Sweet Peas in clumps, Audrey Crier (flesh) on one side, and Frank Dolby (lavender) on the other."

### Flowering Shrubs.

"Rhododendrons are largely grown?"

"Yes, both in beds and on the banks. We do not use any peat, but there is no lime in the soil. That is why they do so well. We have a number as standards, and Cotoneasters are also grown largely."

"What are the best varieties?"

"C. angustifolia, C. frigida, C. horizontalis, C. Lindleyii, C. microphylla, C. Simonsii, C. Franchetti. The varieties of Cratægus are Carrieri, grus-galli, Glastonbury, Korolkow, and pyracantha; and, of Pyrus, Dartmouth, John Dowie, Siberian Scarlet, Transcendent, and aucuparia.

"With regard to Berberis," continued Mr. Paskett, "we have as many as a hundred of Thunbergii in a clump, so as to give full effect to the colours. Buddleias, too, are planted in hundreds, the varieties being Lindleyana, variabilis, v. Veitchii, and v. magnifica. Of Deutzias and Philadelphus we have all the best varieties."

"How many Pampas Grass are there in each clump on the banks?"

"Three; and planted between the Pampas Grass are about a score of clumps of Tritomas in ten varieties. The object is to obtain a mass of scarlet and white colour in the autumn."

### Acers and Kalmias.

"What a quantity of Japanese Acers you have on one side of the lakes."

"There are about thirty varieties in clumps of five, the Junipers close by being prostrata, chinensis, and Sabina."

"You have also large clumps of Acer negundo between the Acer palmata and Kalmias?"

"They also do well. The varieties of Kalmia are angustifolia, latifolia, rubra, and glauca. Other shrubs in clumps in the wild garden are Lilacs, Prunus, Cerasus, Andromedas, Magnolias, and Azaleas."

### The Pick of the Irises.

"We must not omit to make a note of your extraordinary number of German and other Iris."

"They are certainly quite a feature, and are planted all over the garden in great variety, massed in their colours. There are over a hundred varieties of Iris germanica, including Mr. Gladstone, May Queen, dalmatica, Golden Pheasant, Her Majesty, Alvarez, Canary Bird, The Pearl, Garrick, Garibaldi, Queen Emma, and Jenny Lind. Then, round the lakes are upwards of eighty varieties of Japanese Iris, of which I could give you the names, but I do not think they would interest your readers. The varieties of Iris pumila, also on the banks of the lake, include lutea, Violana, lutescens, aurea, gracilis, alba, and cinera."

"Are there any special beds which you would like to mention?"

"There is one large bed of Iris dalmatica which contains over a thousand plants, and is a mass of sky-blue when in flower. Then, along the water's edge are Spiræas Peach Blossom and Queen Alexandra, several Agapanthus umbellatus, the Giant Reed (Arundo donax), clumps of the Osmunda Fern, many clumps of Polyanthus in every variety of colour, and large beds of Ischias and Ramondias. As a matter of fact, there is always something in flower on the banks of the lakes. It is, of course, a great advantage to a wild garden on this scale that there are plenty of Oaks, Beech, and Birch, to give the necessary shade."

### Winter-flowering Carnations.

Leaving the wild garden, and noting outside, on the kitchen garden wall, Ceanothus and Pyrus japonica in bloom, Mr. Paskett observed that after the flower of the Pyrus ceases, he cuts all the flower wood away, and lays in wood for flowering the next season. Knowing that Mr. Paskett has been very successful lately in his exhibits of winter-flowering Carnations, I proposed that we should start the houses by inspecting his collection.

"In this house," he said, "I have about two thousand plants. As you will observe, they are all in pots, standing on the ground. When they are in flower, they are quite three feet in height. In order to keep the house dry and free from fog, and to have a current of air always going through, I heat it by two 4-in. pipes at the bottom, and three 1-in. pipes on the roof and sides. The house is never closed, even in frosty weather. We only grow the best varieties, one of which is Sarah Hill, a beautiful white, almost as large as White Perfection; but its guard petals are not so true, and also Sarah Hill does not travel well. It came over from America in the spring of 1908. As an exhibition bloom, White Perfection is an almost perfect flower, with erect stem, perfect calyx, and the best of guard petals, and good scent."

"We also," continued Mr. Paskett, "have Enchantress (the best of the blush), Rose-pink Enchantress, Lawson, Melody, Fair Maid, Win-

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sor, Winona, Lady Bountiful, White Enchantress, Harvard, Harlowarden, President, Governor Roosevelt, Mikado, Mrs. Burnett, Britannia, Beacon, Afterglow, and Aristocrat. I think Aristocrat is the best cerise yet brought out. It is a beautiful colour, with lovely shape and blooms. Afterglow, which came over from America in the spring of last year, takes twelve months to get acclimatised in this country, but, when once started, it is one of the best pinks in cultivation. Beacon is the best red. Of the newer varieties I shall not be able to say much until next spring, when they will have had a trial. The varieties are O. P. Bassett (red), Delight (shell-pink), May (flesh-pink), Mrs. Charles Knopf (seedling of Enchantress), Mrs. J. C. Vaughan (white), and Bay State (Fancy).

Hybridisation and Culture.

"What about seedlings?"

"I have one here from Enchantress crossed with Harlowarden. It has all the growth and size of the former, but the dark crimson colour of the latter. I believe it will be a good, if not the best crimson in cultivation. Another seedling is a scarlet variety from Britannia and Enchantress, very bright, and of good form. There are several others, but, in trying to get something better than ordinary, one often only succeeds in obtaining many failures."

"When do you strike your Tree Carnations?"

"The earliest in October, and on to March. We never coddle them in the least, but bring them on by as cool treatment as possible. They are potted on as required until we get to 8-in. pots, and then stopped, which means taking out the point of the leading growths. After about the second week in July, we let them go clean away for flower, disbudding as required. The temperature of the house is not allowed to much exceed fifty degrees in winter. To keep the plants clean and healthy, plenty of air should be given, and great care taken not to overwater or overfeed. My opinion is that Tree Carnations are the easiest and most profitable plants to grow."

"I observe that you have some Sweet Peas in flower in the Tree Carnation house?"

"Yes, but perhaps we had better talk about Sweet Peas when you see them out of doors. But I may say, in regard to these, that Sweet Peas and Tree Carnations do well together. The open-air treatment which we practise suits both of them. With regard to the other houses, the Malmaisons are nearly all Princess of Wales, the only other varieties being Nautilus, Nell Gwynne, and H. J. Jones, about six hundred altogether."

Lantanas and Nerines.

"You have a fine lot of Begonias coming on?"

"We use these for decorating the mansion. They are all Messrs. Blackmore and Langdon's varieties, and begin flowering the first week in June, and last for nearly three months. In another house, Begonias Gloire de Lorraine are a great feature, some of them being about three feet through. Then we grow Lantanas, flowering them in the house during the winter, and putting them outside in summer. They are best struck in September. Cannas are grown in pots, with Schizanthus, Spiræas (Washington), and Nerines."

"Have you anything special to say about the cultivation of Nerines?"

"The great precaution to observe is to thoroughly bake the bulbs. We do this on the top of a boiler for three or four months after they die down naturally. Otherwise, exposure to the sun would suffice. The Phyllocactus is a very handsome flower to grow. It requires plenty of heat and moisture while it is growing, and should gradually then be hardened off, ordinary greenhouse treatment being afterwards employed. Our Ferns include some fine plants of Nephrolepis todæaoides, and Adiantum elegans. But our only Orchids are Dendrobiums nobile."

"What about fruit under glass?"

"Fruit is grown chiefly out of doors; but the Peach house contains Duchess of Cornwall, Cardinal, Victoria, Gladstone, and Princess of Wales Peaches, and Pineapple and Darwin Nectarines. Figs are grown in pots, and on the wall and in the Fig house are Cucumbers (Improved Telegraph)."

**Sweet Pea Cultivation.**

Then we went outside, and I saw Sweet Peas, four feet high, in bud.

"How do you manage to get them so forward by the end of April?" I asked.

"These were turned out of pots, and planted two or three feet apart, the rows themselves being twelve feet apart. It is a great mistake to plant Sweet Peas close together. We start inside, sowing in September, one seed in a pot, pot on, stand in a cold frame till the end of February, then turn out into the house, and subsequently plant here. Wire is used, instead of Pea sticks, and they grow up to nine feet. We try to get the best we can of each colour, either by our own hybridising or that of other people. Some of the leading varieties are George Herbert, Etta Dyke, Evelyn Hemus, Constance Oliver, Rosie Adams, White Spencer, Primrose Spencer, Helen Lewis, A. J. Cook, Mrs. Breadmore, Elsie Herbert, Lord Nelson, Helen Pierce, and Countess Spencer."

"Have you many new seedlings of your own?"

"Yes, a great number. Some are on their second trial year, but many on their first. The best we have so far is a very large pink, a cross of George Herbert and Countess Spencer. We have also a very fine white Spencer, larger than White Spencer or Etta Dyke, and the flower is more solid, like Dorothy Eckford. I hope to be able to fix this, though the Spencers are very irritating. Some of the varieties, I think, will never be fixed. In growing Sweet Peas, deep trenching of ground is necessary, also plenty of manure."

**A Strawberry Garden.**

"You have quantities of outside fruit?"

"We planted about two thousand Apples and Pears last autumn, both on the bush, and Pears on cordons, all of the best varieties. I suppose there are fifty varieties of Apples, and between twenty and thirty of Pears."

"You seem to have an entire garden devoted to Strawberries?"

"Practically it is, with a wall on one side and a hedge of Cupressus on the other. The varieties are Royal Sovereign, Sir Joseph Paxton, Kentish Favourite, Givon's Late Prolific, and President Loubet. They are planted a foot apart each way, and at the end of the second year I throw the plants away. The first year we get the best dessert fruit; the second we take every other row out, and the fruit is used for preserving. Thus quality is obtained on the small plants, and quantity on the large."

Proceeding to a new addition to the kitchen garden, which was only planted two years ago, I observed some Raspberries coming on in a very promising manner; and Mr. Paskett said, "After Raspberries are planted, I cut them down to the ground, so as to get vigorous young canes up. It is a mistake to try and get fruit the same year as you plant the canes, but, except the first year, I get plenty of fruit, because the canes are strong to start with. Two of the best Gooseberries are Green Ocean and Cousins' Seedling. Three of the best Red Currants, Raby Castle, Northern Star, and Fay's Prolific. Opposite the eight rows of Gooseberries, a hundred and twenty feet long, are Loganberries and American Blackberries on wire."

GROUP OF PERPETUAL-FLOWERING CARNATIONS.
This group was exhibited by Mr. Paskett at the Horticultural Hall, Vincent Square, and was awarded the Veitch Memorial Medal.

**The Principal Vegetables.**

"What are your principal vegetables?"

"Onions are largely grown. We sow Ailsa Craig early, and then bring them out. The other varieties are Sutton's Long Keeping, A1, James's Long Keeping, and Rousham Park Hero. There are twenty-two beds of Asparagus, all Connover's Colossal, and we began to cut on April 15th, and shall continue until July. With respect to Celery, we put the crowns out in good trenches, being careful not to earth too much at a time. We earth four times during the season. Between the Celery we plant Lettuce, early Turnips, and Carrots, which are cleared off long before the Celery is up. The

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season for Peas begins at the end of May, and we finish in November with Autocrat. The other varieties are Early Giant, Matchless, Quito Content, Exhibition Marrowfat, and Latest of All. The soil all over the gardens is sandy, with a clay subsoil."

Finally, having looked round a couple of remarkably good fruit rooms, perfectly ventilated, lighted by electric light, and so arranged that each tray (containing a bushel of fruit) slides in and out with great ease, I asked Mr. Taskett to tell me about his showing.

"My showing has been limited almost to Sweet Peas and Carnations, though I have also exhibited vegetables and fruit at Tunbridge Wells, etc. Sweet Peas have been shown in London, Tunbridge Wells, and other places, and I have a large number of prizes won at the leading exhibitions. As to Carnations, I won this year the Veitch Memorial Medal and AES for the best winter-flowering Carnations in pots and as cut bloom. I have been awarded six firsts, eight seconds, and six thirds for groups at the exhibition of the Winter-flowering Carnation Society. Mr. and Mrs. Johnstone throw open the gardens occasionally to residents in the neighbourhood, who greatly appreciate the privilege, especially in the Daffodil and Rhododendron seasons. For myself there is very little to say. I started my career in the shop of a florist and nurseryman, and after serving my time I felt I should like an outdoor occupation, so turned to the private part of gardening. I was at Hursley Park, Hampshire, five years, and foreman for over five years at Leonardslee in Sussex. My first situation as head gardener was at Slaugham Park, Crawley. From there I went to Horsley Towers, Surrey, and I was afterwards with Sir James Duke at Laughton Lodge, Lewes. I came here nearly three years ago."

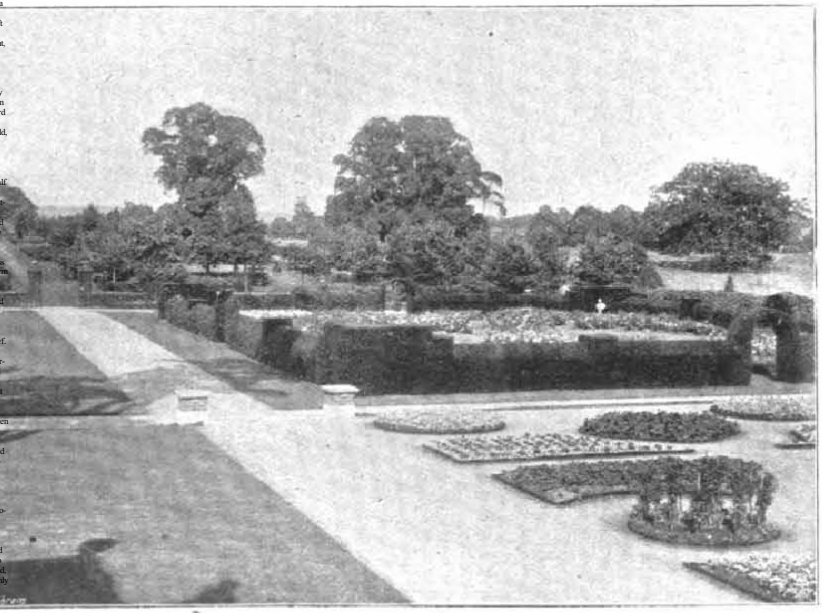
Alfred Wilcox.

# Letters from a Lady Gardener.

## No. 357.—THE LAWN, AND TOMATOES.

DEAR KATE,—This exceedingly dry May is very trying to the lawn, which already begins to look a little sad, and will have to receive immediate help to enable it to pass safely through the hotter months of the year, in a raised position, and with soil. Unfortunately, weeds have less in surviving than grass, and, if they to a strong, rather short point, which then makes a very valuable implement in the destruction of weeds, both on the lawn, and amongst the stones of a rockery.

Dandelions, Plantains, Docks, and Thistles are amongst the worst of all lawn weeds; and these can only be extirpated by cutting the root off about an inch below the greenery, and filling the small round hole thus made with salt or lawn sand, which kills the root, and is most efficacious in dry weather, as the poisonous material then rests on the cut root for some days. In removing these flat-foliaged things, it is a little difficult at first to avoid making a large hole, and raising the sod of grass roots with the weed. This must be carefully avoided ever, and you will soon learn how to do so by giving an oblique cut under the sward, starting at the distance of two inches from the root. It is a good plan to have a tray of fine rich, sifted soil at hand, too, to fill up any accidental holes; and this is specially necessary on a tennis or croquet lawn, in which it is very disastrous to make depressions, as the sward must, of course, be kept thoroughly flat on the surface.



Lawns and Rose Garden at Aldenham House.

### Objectionable Weeds.

The next set of enemies to be encountered are the more insidious, though less observable, weeds which throw their roots far and wide under the grass, popping up at the distance of several inches from the parent plant, and so they quickly starve the grass in broad patches. Hieraceum pilosella (one of the Hawkweeds) is a great sinner in this way; if once its pretty, silver-lined rosettes take possession of a dry bank or lawn, it will soon run all over it, destroying the grass as it spreads. The Blue Bugle (Ajuga repens) is almost as bad; and, as for the Strawberry-like runners of Potentilla tormentilla, they are rightly named, for they spread around in the grass like lightning, if left alone, and then throw roots downwards a foot or more in length, which are a regular torment, for they are hard indeed to destroy without digging up the whole lawn, and picking them out, if that is possible. But, fortunately, they can be killed by sprinkling their foliage in spring with the salt or sand, although they may need repeated doses before every one of them disappears; and you should examine the sward again and again, at intervals of three or four days, to prevent them from getting a fresh hold, until all are destroyed.

Daisies (unless they have been allowed to become old and woody, when they should be treated like Dandelions) are quickly killed by placing a small heap of salt on their centre, half a teaspoonful for each root. Plantains (when young), too, soon shrivel away under this treatment; but Buttercups of the tuberous variety must be dug out with the knife if they have had time to grow strong. One of the most tiresome of the annual weeds is the tiny Buttercup (Ranunculus minus), with light green foliage, quickly covered as it lies flat amongst the grass with minute yellow flowers; these rapidly form seeds, and ripen before one can look round in dry weather, spreading fresh troubles on all sides, with a new crop of seedlings. Chickweed is like unto it in these particulars; and both of these (with all other small annual weeds) should be destroyed by sprinkling the young seedlings before they have time to do mischief.

It takes a little experience to make sure of murdering them all satisfactorily without injuring the grass, for both the specifics mentioned will kill the blades of grass, making ugly bare patches on the lawn, if used too heavily. About two ounces to the square yard is the right amount. So you see your work is cut out for the summer, if your lawn is extensive; and even on a small lawn you will probably find something to do. But it is fascinating work, and the appearance of a lawn is so much improved by this care that it is quite worth your while to do it.

### Dressings for Lawns.

Salt and lawn sand are both of manurial value, not only in themselves, but also by attracting and holding the moisture of the atmosphere, so that a light application of either is specially useful in a drought; but if the soil be poor, the lawn should have a thorough top-dressing of rich loam, finely sifted, and mixed with a little soot, or fertiliser of some sort, also burnt vegetable ashes, old hotbed material, and, in fact, anything nourishing you may have, only remembering that nothing too large to go through the sieve must be used, or the level of the lawn will be upset by lumps.

In the case of a low-lying lawn, with a heavy soil, a sprinkling of hot lime is useful to kill the moss which is sure to infest it, following up this application with a rich mulch, a fort-

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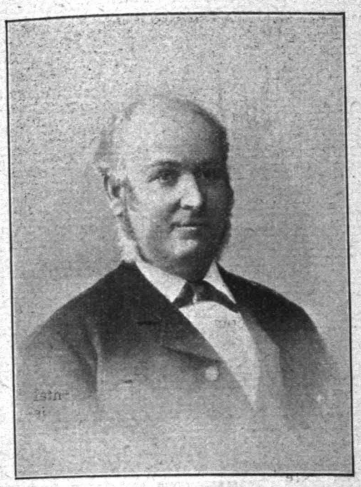
the seller that the latter gets a fair profit, for without it he must cease to exist, or else sell inferior goods. That is the danger which is now threatening the bulb trade. A large proportion of the public, unfortunately, care more for cheapness than for quality, and these sales of inferior bulbs at ridiculous prices are utterly ruining the business, to say nothing of the gardens in which this stuff is planted. The



MR. H. PASKETT.

remedy is a combination among English firms. If they were to agree not to deal with any Dutch firm that sent its surplus rubbish to English salerooms, the latter would drop this branch of its business as being the least profitable, and would confine itself to legitimate trading. And the English public, as well as English horticultural firms, would be the gainers.

H. C. DAVIDSON.

*(To be continued.)*

## FAMOUS GARDENERS AT HOME.

### No. 63.—MR. H. PASKETT, AT THE GARDENS, LEONARDSLEE, HORSHAM.

IT is somewhat over half a century since the late Mr. W. E. Hubbard conceived the idea of building a house in St. Leonard's Forest, and surrounding it with suitable gardens. The idea was admirably carried out, and Leonardslee has for some years been justly regarded as one of the most lovely places in the county of Sussex. Fourteen years ago, on the death of Mr. Hubbard, the estate was purchased by his son-in-law, Sir Edmund Loder, under whose auspices the gardens have been greatly enlarged and improved. Leonardslee has many attractions, not the least being its seclusion, while people interested in animals might place first the fine collection of ibex, antelopes, kangaroos, prairie dogs, and Alpine gazelles, which the owner has gathered together in the course of his travels. The mansion is also delightful, and arranged with a view to comfort rather than show. But the feature *par excellence* is the not easily equalled beauty of the grounds, and the splendid views of the surrounding country which can be obtained from them. Sir Edmund is not only extremely fond of his gardens, in which he spends a great deal of his time when he is in Sussex, but he is a recognised authority on horticulture, and has a scientific knowledge of many plants and their requirements.

On the occasion of my visit, which, though it took place in November, had every advantage that could be afforded by brilliant sunshine, Mr. H. Paskett, the head gardener, whose experience has been varied and extensive—especially in American and Japanese plants—did his best in the brief period at our disposal to show me the manifold charms to be found in a demesne extending over a hundred acres. Even this may not be the final limit, for at the present moment several acres are being taken away from the forest to add to the very extensive American grounds. In fact, it would be very difficult to say to how great an extent, as time goes on, this will be carried. With the natural advantages they possess, and with no stint either in pains or expenditure, these gardens should at no remote date rank as amongst the finest in the kingdom. I confess that I saw enough to satisfy any average man. We started on our rounds with the kitchen garden, which is close to Mr. Paskett's pleasantly-situated abode, and here, at the very outset, I encountered evidences of Sir Edmund Loder's love for out-of-the-way plants. Instead of the south side of the north wall in the kitchen garden being covered with fruit trees, they are adorned by the New Zealand Bottle-brush (Metrosideros florida), which flowers very freely, Sunrise and Senica Roses, the Camphor (officinalis) and Cinnamon plants, Olea fragrans, and a quantity of Mandevillea suaveolens. Then my eye caught a bed of Wallflowers in bloom, and I asked Mr. Paskett how he manages it.

"They are the Parisian Early," he said, "and they will continue to flower until late in the spring. We grow about six varieties, and sow them in May in seed-boxes. They are pricked out in nursery lines as soon as they are large enough to handle. We consider that the Parisian Early, and Veitch's Dwarf Dark-red, Selected Yellow, Blood-red, Ruby Gem, and Vulcan are sufficient for ordinary purposes."

"You have an excellent stock of Pyramid Apples and Pears?"

"Yes, but the greater quantity of Apples are grown in the orchards, which run to over a hundred acres."

"What are your principal varieties?"

"Allington Pippin, Cobham, American Mother, Wealthy, Brownlees' Russet, Margil, Calville Rouge Precocé, Christmas Pearmain, Mrs. Barron, Cornish Aromatic, Royal Jubilee, King of Tompkins County, St. Edmund's Pippin, Washington, Newton Wonder, Barnack Beauty, Tyler's Kernel, Belle Pontoise, Josephin Belle, Castle Major, Calville des Fernes, Gascoyne's Seedling, Prince Edward, Okera, Hambling's Seedling, and Hoary Morning."

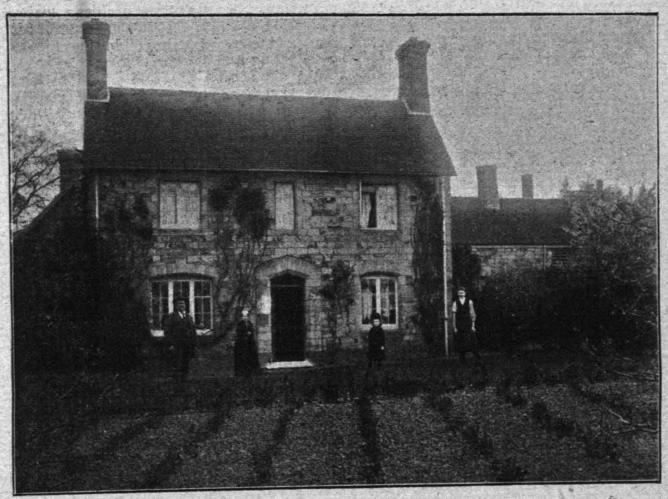
"Of Pears," continued Mr. Paskett, "I think the following are the most noteworthy: Princess, Triomphe de Jodoigne, Triomphe de Vienne, Marguerite Marillat, Le Lecteur, President Barrabe, The Parrot, Beurré Alex. Lucas, Beurré Bachelier, Beurré Baltet Père, Beurré Niger, Beurré Diel, Beurré de Mortillet, Beurré Dumont, Beurré Fouqueray, The Marquis, Conference, Directeur Hardy, Emile d'Heyst, Doyenné du Comice, King Edward, Fondante de Cuerne, Magnate, Nouveau Poiteau, Nouvelle Fulvie, and Passe Crasane."

"Plums, too, are another big feature?"

"Yes, both Plums and Cherries. The varieties of Plums include: Golden, Transparent Gage, Belle de Louvain, Brandy Gage, Bryanston Gage, July Gage, Czar, Denniston's Superb, Early Transparent Gage, Italian Prune, MacLaulin, Monarch, Oullin's Golden Gage, and Reine Claude de Bavay. Among the Cherries are: Bigarreau, Bigarreau Napoleon, Black Tartarian, Early Rivers, Emperor Francis, May Duke, Empress Eugene, St. Margaret's, and Bigarreau de Hedelfingen."

"Do you also go in considerably for the smaller fruits?"

"We have a large quantity of Gooseberries, Currants, Strawberries, and Raspberries. The more notable of these are:—Gooseberries.—Red varieties: Crown Bob, Clayton, Ironmonger, Lancashire Lad, Dan's Mistake, Rifleman, Whinham's Industry; White varieties: Bright Venus, Lady Leicester, White Eagle, Whitesmith, Wellington Glory; Green varieties: Conquering Hero, Langley Green, Greengage, Keepsake, Green Gascoyne; Yellow varieties: Broom Girl, Moreton Hero, Viper, Golden Drop, Early Sulphur, Leader. Currants.—Black varieties: Black Naples, Carter's Champion, Lee's Prolific; Red varieties: La Hative, Raby Castle, Victoria, Knight's Early, Cherry, La Versailles, Rivers' Late Red; White varieties: White Transparent, White Dutch. Raspberries: Baumforth's Seedling, Hornet, Norwich Wonder, Superlative,



THE GARDENER'S COTTAGE AT LEONARDSLEE, HORSHAM.

Semper Fidelis, and Guinea. Strawberries.—Vicomtesse Hericart du Thury, Leader, Sir Joseph Paxton, Royal Sovereign, Laxton Noble, British Queen; and the new hybrid perpetual-bearing St. Joseph."

"And vegetables?"

"We grow all the ordinary kinds, and force largely, especially Seakale, Tomatoes, Asparagus, Potatoes, Peas, and Beans. Like Strawberries, Beans are grown nearly all the year round. Glasshouses are not a leading feature, but, as you see, we have several, including three Peach houses."

"What are your favourite varieties of Peaches?"

"Hale's Early, Royal George, Late Devonian, Bellegarde, Dymond, Marquess of Devonshire, Barrington, Nectarine Peach, Violette Hative, and Crimson Galande."

"You have all the early, late and main Grape crops in the vineries?"

"Yes, and on the back walls in the early Grape house is a Creeping Cereus, which runs up from twelve to thirty feet, and flowers only at eight o'clock at night."

"At what period of the year?"

"In the early spring. The flowers, which are of all conceivable colours, come out daily for about a month, and last only a single day. The creeper, which belongs to the Cactus species, presents a very striking appearance, as it grows in connection with the Asparagus Fern. The back walls of the vineries are covered with Smilax. The range of glass includes a stove house, a Cucumber house, a Rhododendron house, a Fern House, and three greenhouses. We have also numerous pits for forcing purposes, and various outdoor frames."

Then, as we passed along the splendid Palm walk at Leonardslee, and I observed among the Palms one twenty to thirty feet high, I enquired about the varieties of Rhododendrons.

"They are the very best in cultivation," rejoined Mr. Paskett. "Many are choice hybrids collected by Sir Edmund and his friends, and the result of cross-breeding and hybridising. These are not in commerce. We grow thousands of seedlings hybridised from the choicest kinds, and Sir Edmund is looking forward with great anxiety to see them bloom."

"You might mention some of the named varieties."

"Among the large-flowering Rhododendrons are Luscomb's Hybrid, Barbatum, Ange Vervaet, Aucklandii Hybridi, Louis Phillip, Broughtonianum, Luciferum, Thomsonii, Fulgens, Fortunei, Decorum, and many of the Arboreums, such as the blood-reds, spotted, pure whites, etc. Early-flowering varieties include Nobleanum, Princess, Jacksonii, and Caucasicum album; choice hybrids are Standishii, Aucklandii x Thomsonii, and Aucklandii x Fortunei; in sweet-scented kinds, Shilsonii, and Iverianum; and small varieties, Lenatum, Camelliaflorum, Rosy Belle, Celeatum, etc. There are also a number of Himalayan varieties, with large and handsome leaves, such as Falconerii, Hodgsonii, Eximium, Longifolium, and Argentum grande; the Sitkkim varieties, or, as they are often called, the wax-flowered Rhododendrons, Blandfordiaflorum, Royalei, Cinnabarinum, Thibaudense, etc.; and, of the Alpine varieties, we have Arbutifolium, ferrugineum major, ferrugineum album, hirsutum, Myrtifolium, and Præcox."

"Azaleas, also, I see, adorn this walk?"

"Yes, in great variety, including hardy Ghents, mollis, Rushea sinensis, all fine specimens, and double and single. There are also many of the Azalea indica, large beds of Fielder's White, Deutsche Perle, and Duc de Cumberland."

"How many Palms are there altogether?"

"Between two and three hundred planted out in groups, and varying in height from three to thirty feet. Some of them came from Italy. The loftiest of all is a Chamærops excelsa. A visitor to the gardens remarked one day on the beauty of the Palms, but said that they must involve great labour to move them in the winter."

"But they are not moved?"

"No; they all remain in the open throughout the winter."

"Does that apply to the Camellias, too?"

"Yes. The largest specimen of the Camellia is not, however, in the Palm walk, but stands on the back of the terrace, exposed to the north-east winds. It is a pink variety, and when it is in bloom there are often four thousand flowers at once. Some of the shrubs grow to the height of twenty feet."

Here, after turning back to take a peep at the Rose garden, which contains a thousand of the choicest varieties, including Tea Roses, Noisettes, Climbers, Polyantha Roses, and singles, we arrived at the herbaceous border, where there is always something in flower. It is, in fact, a portion of the alpine garden, of which a striking feature is a rockery three-quarters of an acre in extent, the whole being about two acres. The rocks, with the waterfalls, are in imitation of the Alps, and there is a cave containing a number of Ferns, including the Killarney, which grow on the rocks in their natural state.

"The names of the plants flourishing in the rock garden," said Mr. Paskett, "are Dryas Drummondii, Œnothera speciosa rosea, and marginata, Mitchella repens, Mertensia maritimes, Primula minima, Arnica montana, Edrianthus pumilio, Fuchsia procumbens, Petrocallis pyrenaica, Pelargonium Endlicherianum, Ramondia pyrenaica, Sarracenia purpurea, Linnæa borealis, Lithospermum graminifolium, prostratum, and petræum, Dianthus alpinus, Opuntia Engelmani, monacantha, occidentalis, and glauca."

"I should like to have the names of some of the plants on the border?"

"Zauschneria californica, Rudbeckia Newmanii, Morina longifolia, Lychnis chalcedonica and flos-cuculi, Incarvillea Delavayi, Heuchera sanguinea, Helianthus multiflorus grandiflorus, Gypsophila paniculata, Anemone japonica and alba, Anthericum liliago major, Dicentra spectabilis, Erigeron speciosus, Arnebia echioides, Eremurus robustus Elwesiana, and Phygelius capensis."

Passing into the conservatory, I noticed some very fine Tree Ferns, and some lovely creepers. It was also gay with the Queen of autumn flowers, the Chrysanthemum, of which between eight and nine hundred are grown at Leonardslee, in all modes. There is only one little piece of bedding in the walk leading to the beaver pond. At present it is filled with bulbs and Forget-me-nots, and in summer Begonias are a favourite. On the house itself, among the endless verandahs, are fine specimens of the Tree Poppy, and so many climbers that I asked for a few names.

"They include," replied Mr. Paskett, "the following: Leptospermum grandiflorum, Escallonia Langleyensis, Romneyi Coulteri, Clematis Jackmanni, Benthamia fragrans, Pittospermum obira, Azara microphylla, Punica granatum, Ephedra altissima, Rhyncospermum jasminioides, and Banksian Roses."

As we proceeded on our way along the walk, under an arch of Rhododendrons, before we came to the American garden, I commented on the exceeding majesty and beauty of the trees, among which are: Beech, Birch, Holly, Limes, Liquidambar, Maples, Hawthorns, Cratægus of sorts, Cherry, Cerasus of sorts, Maples, Pyrus of sorts, Sycamore, Tulip Trees (Liriodendron tulipiferum), Walnuts, Spanish and Horse Chestnuts, Pinus austriaca and corsica, Abies Douglasii, Spruce (Scotch), Oaks in many varieties and colours (from dark green to crimson-red), Cedrus deodarus, Cupressus. Thuja Lobbii, and Wellingtonia gigantea.

As to the American garden, which has frequently been enlarged since it was started, it would be impossible to describe the contents. Clumps of Bamboos of various sizes—hundreds three to thirty feet high, and twenty feet through—are grown in the gardens; and huge Palms, having, in many cases, the appearance of foreign jungles, are a feature. Down by the ornamental waters are some fine old clumps of Ponticum Rhododendrons, with their bare, twisted trunks and stems in every direction, while underneath are hardy British and American Ferns. Many hundreds of flowering bulbs are here for undergrowth, and will make a brilliant show when the spring comes.

"We have tons of bulbs," said Mr. Paskett, "of every kind, including one of the latest King Alfred, which cost £5 10s. each. The Narcissi and Daffodils cover several acres. Some of the large trumpet kinds are: Maximus, Madame de Graaffe (perianth), Glory of Leiden, Golden Spur, Bicolor Horsfieldi, Obvallaris, Spurius, Victoria, and Emperor (the last of immense size). The medium trumpets include Sir Watkin, Stella superba gigantea, Stella Narcissus, Katherine Spurrell, Gloria mundi, Mrs. Langtry, and Nelsoni major. The small trumpet sorts comprise Burbidgei, Poeticus, Pheasant-eye, P. grandiflorus, P. ornatus, P. poetarum, and Alba plena odorata. Among the dwarf kinds are Minimus, Triandrus albus, Cyclamineus, Corbularia, Citrinus, and many more too numerous to mention."

"Which of the Water Lilies you grow in such profusion do you recommend?"

"Nymphæa gloriosa, N. Laydekeri purpurata, Robinsonii, Marliacea rosea, Ellissiana, Odorata rosa, and Pygmæa helvola, small varieties."

Further on, we came to two ornamental bridges, covered with creepers, and there is also a stone bridge, which is a copy of the bridge at Dartmoor made by the convicts to cross to their daily work. On the opposite side of the banks are in spring tens of thousands of common Primroses, Bluebells, and British Ferns, including Osmunda, and some of the American variety.

Mention must be made of the Pampas Grass, which, with their plumes waving in the wind, make a striking picture in the distance on the high ground. Time would fail, and space does not permit, to tell of the diverse plants and shrubs which Mr. Paskett pointed out in this part of the garden before I left. But among the new experiments he is trying is the growth of Smilax in the open. It has done well so far, and he is hopeful that it may stand the winter.

As may be imagined, even with a staff of forty men to assist him, he is always very busy, and it is not likely, in view of the developments contemplated at Leonardslee, that he will be less occupied, or have less opportunities for putting his knowledge to a practical test.

ALFRED WILCOX.

## LETTERS FROM A LADY GARDENER.

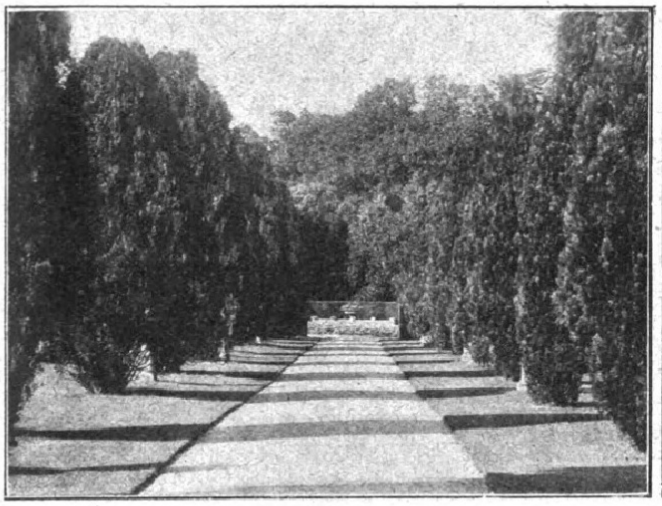
### XIX.—A BOWER, AND POSTS AND CHAINS.

DEAR KATE,—Now that the garden is quite devastated by the cold storms we have had, it is the best time to plan and carry out improvements and alterations, as all hardy things can be planted now, and one need not mind making the garden rather untidy.

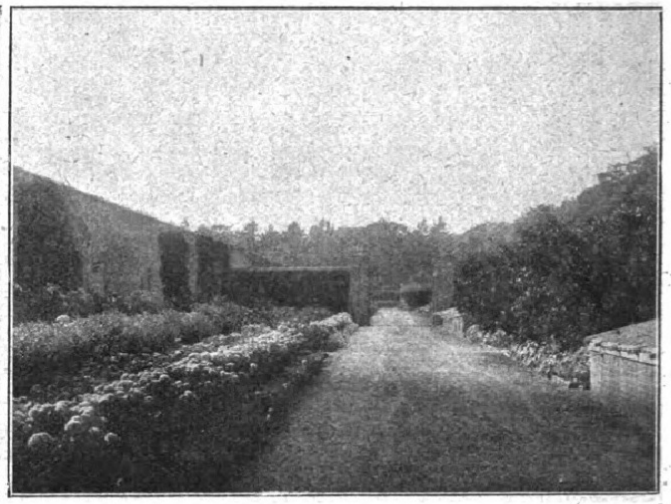
If I were you, I should put up a bower, or a series of arches, for your garden is rather wanting in striking features (if you will excuse my saying so), and you need a shady, cool corner to sit in during the hot summer afternoons. I send you a photo of a Rowan-tree arch; the trees can be planted when six or seven feet high, and merely tied together in the form of an arch, when a yearly training and pruning (done in July) will keep it in order. The white flowers are produced in clusters all over the tree in May, and these are followed in autumn by the loveliest coral berries, in

Mr. Paterson





A WALK IN THE PLEASURE GROUNDS AT HOLKHAM.



FLOWER BORDER IN THE KITCHEN GARDEN.

# The Gardens of the Earl of Leicester, at Holkham, Norfolk.

ALWAYS one of the features of interest at Holkham, the famous historic seat of the Earl of Leicester in Norfolk, the gardens have been developed and further beautified since the present peer succeeded to the estate and family honours. Both Lord and Lady Leicester are extremely fond of their gardens, and on the occasion of my visit to Holkham towards the closing days of summer, Lord Leicester referred to some of the changes which have taken place lately in the pleasure grounds and in the kitchen garden. It may, perhaps, be said that while Lord Leicester's attention centres in the cultivation of fruit, that of Lady Leicester is concentrated in the flower beds, with the result that Mr. Donald Paterson, the gardener—who came to Holkham soon after Lord Leicester's succession—and his staff are encouraged in their work. Mr. Paterson, who showed me round, had the advantage of experience in all parts of the United Kingdom before Lord Leicester selected him for the post of gardener at Holkham. Judging by all I was able to see, he has abundantly justified the choice, and has shown that in addition to energy and ability, he possesses the valuable qualities of originality and fine taste. No attempt was made in a few hours to exhaust the charms of Holkham. Dealing with the principal attractions, we started at the north front of the imposing and stately mansion.

"Here," said Mr. Paterson, "Antirrhinums are used exclusively. There are four hundred plants in each of the five beds, and the only variety is Sutton's Orange King. The colour is lovely, and we think that its loveliness is increased by the absence of any kind of edging.

"On the west side, which commands an excellent view of the lake, a mile long, the stone steps are all planted with pink Geranium Amaranth. It takes twelve hundred to fill them. The other beds in the Recess consist of two entirely filled with Antirrhinums Fire King. The four outer beds consist of Intermediate Yellow, and the four inner of Intermediate Pink. All the Antirrhinums are edged by dwarf Alyssums. In spring these beds are exclusively occupied with Wallflowers Cloth of Gold, Fire King, Blood Red, and Eastern Queen."

### BEDS WITHOUT EDGING.

"The bedding on the south front is on a very extensive scale. Starting from the west—you will observe that there are no creepers on the Hall—is a bed containing two thousand six hundred Pentstemons, all pink, also without edging. Wherever edging is dispensed with, care is taken to plant closely, and to hide all soil. At each corner are clumps of Ivy. Next is a chain bed of Iresine with Cineraria maritimum, and an edging of Box. The idea is to obtain a contrast with white and red for each pattern. At the end of the chain, with the vase in the centre, is a bed of the double white Marguerite, Mrs. F. Sander, edged with blue Ageratums. The two centre beds are filled with Paul Crampel Geraniums, two thousand in each. The effect of the mass of scarlet is enhanced by the white gravel paths and the clumps of Golden Yew. The big vase contains Butterfly Blue Delphiniums in the centre, which are edged with blue to cover the stone. There are broad walks between two of these beds."

"How do you decorate the fountain and its surroundings?"

"With mixed varieties of Lilies, and a great number of standard Ivies, which are hand-clipped in spring and autumn. The next bed corresponds to the chain bed. Three of these beds consist of scarlet Phloxes in the centre with white on the outside."

"And the beds facing the winter garden?"

"There are Yellow Intermediate Antirrhinums in the eight round beds, which give a wealth of flower for a very long period. In the winter garden itself, Palms planted out in the soil, and a number of creepers, are most conspicuous."

We next made our way into the tennis courts, proceeding subsequently through the walk which leads to the Temple, and is on either side lined with striking specimens of Cupressus erecta viridis.

### THE AMERICAN GARDEN.

"In this vicinity," continued Mr. Paterson, "there are several flower beds in different parts of the lawn. One of the largest is devoted to Michaelmas Daisies, of all shades of colour. Further on, without any formal break, is the American garden, and here are four large beds of white Asters. Four others are filled with Heliotropes Lord Roberts; four with Sutton's Rose-pink Asters; and four with Sutton's Mauve Aster, each bed averaging between three and four hundred plants. In this case, the principle of edging is adopted, and the brickwork is covered with Alyssums. Wall flowers are mainly used in the spring.

"Amongst the more notable trees and conifers, there is, first of all, the celebrated Corsican Pine, the largest in the United Kingdom. It is quite a hundred and twenty years old, and was one of the first to be introduced in this country. The Tulip Tree near it is from sixty to eighty years old, and Cedars, Wellingtonias, gold and silver Elms, with Conifers in great variety, are conspicuous amongst trees. The Wild Fernery, with the surrounding hedge of Yews, has many varieties, and includes a house made of shells in the centre. On either side of the walk to the summer house perennials and annuals are used in large quantities to make a mass of colour.

"Next we come to Yew Hedge Circle, with old English pavement for the floor. The Yews are carefully clipped, and the large carved seat is very ornamental. In the circular bed Phlox Drummondii makes a bright display, and in the vases near the seat Fuchsias Ballet Girl occupy the centre. Within the last two years a winding walk has been made round the whole of the gardens. It might almost be described as a hidden walk with a woodland path, destitute of straight lines."

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The kitchen garden is some distance from the pleasure grounds, is ten acres in extent, and is divided into four large quarters. The main entrance is through an Italian gate, and a broad walk runs right along the four divisions. The glass ranges are conveniently confined to a single square. As there are from thirty to forty houses, we only inspected the more important.

### THE FRUIT HOUSES.

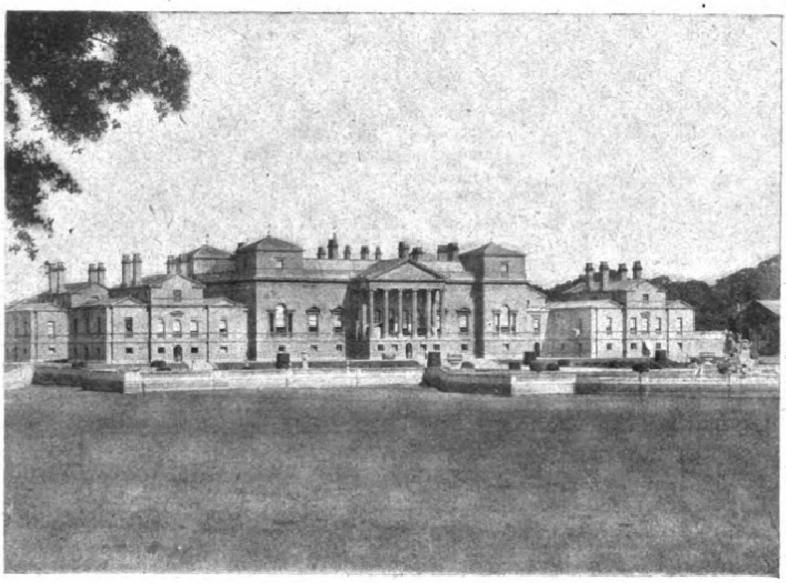
"Shall we take the fruit houses first?" I suggested to Mr. Paterson, as we walked along.

"There are two ranges of Peach houses, in which both Peaches and Nectarines are grown; the former do very well indeed. In the vineries Black Hamburgh and Foster's Seedling are used for early work; and an entire house is given up to Madresfield Court, which was planted twelve months since, and always does better by itself. The next house was planted three years ago with Muscat of Alexandria, and there are numerous large bunches. In another vinery, Appley Towers, Lady Hastings, and Gros Maroc are grown. We have had bunches weighing four pounds in this house. In the late vinery Black Alicante and Gros Colmar supply us with a quantity of fruit."

"Do you get two crops of Figs?"

"Yes, always. They do remarkably well. There are only three varieties, Brown Turkey, Negro Largo, and Brunswick. In this house we grow the Cape Gooseberry, which also crops twice a year, and is very useful for dessert and kitchen purposes. Ordinary greenhouse treatment only is required, and we replant after the fourth year. We begin to cut Melons in the middle of May, and keep up a supply until October. The only Cucumber in the house is Telegraph Improved, and we have them all the year round.

"With regard to plant houses, we flower from sixteen hundred to eighteen hundred Tree Carnations. There are twenty varieties. About a thousand Bush Chrysanthemums, in a score of varieties, are flowered. Begonias are another large feature. A house is devoted to the winter-flowering varieties, which is now full of Tomatoes, the crop being exceptionally good. In the Malmaison house, there are about a thousand plants. In addition to Carnations, there are Calanthes, Cyclamen, Plumbago rosea, Genistas, Cineraria stellata, and Primula obconica Giant White. You see that in one of the houses the edible Passion-flower flourishes and covers the roof. There are four plants, and we get a crop of four dozen off each. Greenhouse temperature is far better than stove temperature."



HOLKHAM, NORFOLK, THE SEAT OF THE EARL OF LEICESTER.

### WONDERFUL FLOWER BORDERS.

"Dealing with the flowers outside, the border in front of the house is composed of Larkspurs, Anemone japonica, standard Roses, Asters, and Stocks. Four varieties of Border Carnations fill a south border. These are faced by Larkspurs, white, scarlet, and blue. Further on are two borders of considerable length, one side consisting chiefly of annuals, pink Phlox, Montbretias, five rows of Chrysanthemums, a different variety in each row, and an edging of pink and white Pinks. The opposite side is composed of Pentstemons, with autumn-flowering Chrysanthemums in five varieties. In the Rose beds Caroline Testout, Frau Karl Druschki, Madame Ravary, Viscountess Folkestone, Richmond, Jessie, Lyons Rose, Captain Christy, General MacArthur, and Ulrich Brunner are some of the best. Near these beds is a collection of Cactus and Pæony-flowered Dahlias. All the flower beds are filled up in the spring with Tulips and Narcissi, planted in separate colours."

### A BRILLIANT NEW DEPARTURE.

At this point my attention was attracted by a striking combination of colour in a border which seemed partially devoted to vegetables, and Mr. Paterson said, "This border consists of Pentstemons Newbery Gem in two rows, the length of the rows being two hundred yards, and the number of plants close upon two thousand. Behind these is a large breadth of Broccoli Veitch's Self-protecting, and the two together form, I think, a remarkable contrast in colour."

"The combination is so remarkable and so successful that I imagine you will make it a precedent for others."

"Probably I may, as it seems to be generally admired."

"I notice that your wall fruit includes a number of Apricots?"

"The south wall, a quarter of a mile long, is covered with Apricots. On the north wall Morello Cherries do well, and Figs equally so on a south wall. We started picking the latter the third week in August. In the cultivation of Figs we cut out the old wood. Close to the Figs is a famous Mulberry tree, which occupies a big space on the wall. It is two hundred years old, and its trunk is a vast size. We always get good crops of fruit from it. Eight varieties of Plums are grown, but our leading fruit crop is Apples. The dessert varieties are Beauty of Bath, Langley Pippin, Mr. Gladstone, Lady Sudeley, Worcester Pearmain, James Grieve, King of the Pippins, Margil, Cox's Orange Pippin, King of Tompkins County, Court Pendu Plat, Mannington Pearmain, Lord Hindlip, Cockle Pippin, and Sturmer Pippin. As to kitchen varieties, we find that fourteen answer our purpose very well. They are as follows:—Lord Grosvenor, Lord Suffield, Ecklinville Pippin, Warner's King, Blenheim Orange, Sandringham, Lane's Prince Albert, Alfriston, Bismarck, Dumelow's Seedling, Mere de Menage, Newton Wonder, Annie Elizabeth, and Betty Geeson.

"The orchard outside the kitchen garden is a new addition, planted three years ago, and is three acres in extent. The Apples are mostly dessert kinds. Loganberries, Japanese Wineberries, and the American Blackberry are also grown here. The plantation of Medlars and Damsons outside the kitchen garden includes a stoneless variety, thirty years old, which has a better flavour than any of the others."

"The time would fail you to tell of vegetables, but I notice that there are almost endless rows of Peas?"

"The crops of Peas have been good this year. We began to pull the second week in June, and they will last well into October. Early Potatoes, like Pears do well on south borders; and Onions everywhere. In fact, the soil suits all vegetables, and we never have any difficulty with them, though if I could give you the figures you would be surprised at the quantities consumed during twelve months. We bed close upon ten thousand Wallflowers, three thousand Tulips and Myosotis, but some of the vegetables run the flowers hard in numbers." ALFRED WILCOX.

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Next week The Gardens at Shiplake Court, Oxfordshire, will be described.

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It has been arranged to hold next year's Spring Show of the Royal Horticultural Society on May 19th, 20th, and 21st, in the grounds of the Royal Hospital, Chelsea. The Summer Show will be held at Holland House, Kensington, on June 30th, July 1st and 2nd.

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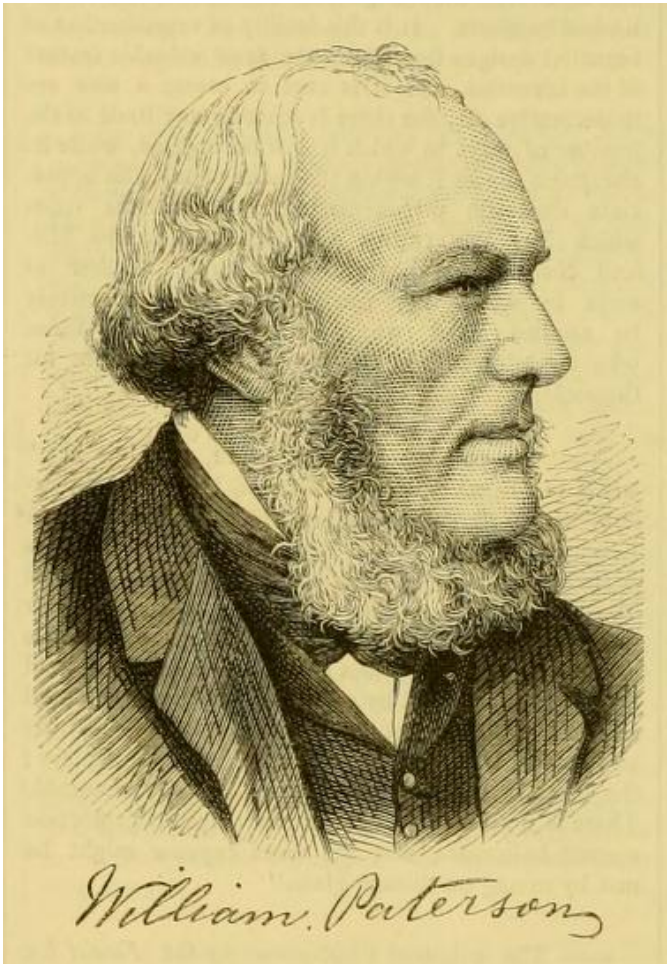


William Paterson, head gardener at Balmoral

Gardeners' house at Balmoral

Mr. William Paterson, Her Majesty's gardener at Balmoral, was born in 1822, at Mortlach, in Banffshire, where his father rented a small farm. He received most of his education at the parish school of Fochabers. When sixteen years of age he was apprenticed for four years to Mr. Christie, nurseryman, Fochabers, in whose nursery in those days there was grown a good general stock, and new trees and shrubs were added to the collection as they came out. This gave Mr. Paterson a good opportunity of acquiring their names, mode of propagation, &c, and the management of nursery stock.

From Fochabers Mr. Paterson removed to Aberdeen, where he entered the then celebrated nurseries of Messrs. Roy & Son, and remained there two years. From thence he went to Mar Lodge (Earl of Fife), where he remained two years, and in 1847 he removed to Balmoral, as head gardener to the late Sir Robert Gordon, whom he served for one year, and then in 1845 entered the service of Her Majesty the Queen. Mr. Paterson has thus been twenty-eight years in the service of Her Majesty, and during all that time has received from Her Majesty the greatest kindness and consideration, as well as from all the other members of the Royal Family, Some notice of the grounds under his charge are given in another column.

"*Gootee.*"—The following is the description of propagation by "Gootee," as it appeared in the *Transactions* of the Society, vol. iii., p. 2., and vol. vi., p. 18:—"Select a firm, healthy branch, the wood of which is well ripened, and immediately below a leaf-bud take off a small ring of bark, about 1 inch wide; scrape the woody part well, so that no bark remains. Apply a ball of well-tempered clay, bind it securely with tow, or other soft bandage, make it fast to a stake if necessary; hang a small pot having a hole in the bottom just over the 'Gootee,' and supply it with water daily. In a few months you obtain a fine well-rooted plant As soon as the roots are seen protruding themselves through the bandage, the branch may be cut off from the parent tree, and planted where it is intended that it should remain. If it be found that the flow of water from the pot suspended above the 'Gootee' trickles too quickly, it is suggested that a thin piece of rope, knotted at one end, be passed into the pot and through the hole, the knot fitting the inside of the hole rather tightly; the other end of the rope should be drawn tight, and attached to the top of the 'Gootee.' In this way the water will trickle down the rope, and be distributed evenly over the 'Gootee.'"

Hitherto Filicium decipiens has defied all methods of propagation, except in the way of cuttings on a hot-bed under glass; but a few good plants were secured by "Jadu" being used in the "Gootee" instead of earth or clay. *Extract from "Calcutta Daily News."*

## SCIADOPITYS VERTICILLATA.

If one may give credit to rumour, this choice Conifer does not grow very freely in many places in the British isles, a matter of regret when we consider what a handsome and distinct tree it is. I have about two dozen specimens under my care, which I have mostly grown from the seedling state; they are in perfect health, with dark green leaves, and make over 1 foot of growth annually. We find the best time for transplanting is from the middle to the end of October, and the soil they grow best in is loam, peat and leaf soil in equal parts. They require to be planted in a sheltered situation, as cutting cold winds very soon change their colour. Some plants which we put out in prominent but exposed sites, had to be removed to shelter again; they also require a certain amount of shade, and copious supplies of water during the summer months when growing freely.

If left to nature, I find the Sciadopitys will grow with a single leader and an open habit of growth, but if the leader be stopped when the plant is about 1 foot in height, it will send out lateral growths, and lay the foundation of a well-shaped tree, and later on will send up a leader. Recently, I measured a plant that had been stopped three years ago, and is only seven years from the seedling state, and I find it is 5½ feet in height, and 13½ feet in circumference. *Planter.*

# Obituary.

**William Robinson.**—Many of our readers will learn with regret that Mr. William Robinson, head-gardener for twenty years to Mrs. F. L. Ames, of Boston, U.S.A., died on Wednesday, September 16, at the age of forty-five years. Mr. Robinson was a native of Bedale, Yorkshire, and was in early life employed in such good gardens as those of the Duke of Cleveland and Sir Titus Salt; and he was for some years employed in Messrs. J. Veitch & Sons' nursery, Chelsea. He was a good all-round gardener, and an expert cultivator of Orchids, and a hybridiser of them as well, and succeeded in raising some highly interesting crosses of Cypripediums, some of which are likely to remain extremely rare, owing to the scarcity of the parent species. He also tried his skill on Masdevallias, and several of his raising have been distributed.

**Mrs. Darwin.**—The death is announced, at the age of 88, at Down, Kent, on the 2nd inst., of Mrs. Darwin, widow of the late Charles Darwin, the illustrious naturalist. Mrs. Darwin's maiden name was Emma Wedgwood, and she was the daughter of Darwin's uncle, Josiah Wedgwood, and the granddaughter of the founder of the Etruria works. She was married to Mr. Darwin on January 29, 1839. After their marriage they lived at 12, Upper Gower Street, where they remained until 1842, when the move to Down was made. It was at Down that Darwin died on April 19, 1882. A few days more and Mrs. Darwin might have lived to hear a Bishop at the Church Congress speak in wise and sympathetic terms of that hypothesis which another prelate some yaars since endeavoured to ridicule. But Bishop Wilberforce had not taken the measure of his Huxley!

**William Paterson.**—After a record of forty-years' faithful service as head gardener to Her Majesty the Queen, at Balmoral, Mr. William Paterson died on Monday of this week, at Daisy Cottage, Balmoral, at the age of 72. Mr. Paterson was a man of fine character, of the highest integrity, and of genuine Christian spirit, qualities that were appreciated by his Royal mistress and by the Royal Family.

William Paterson was born in 1824, at Mortlach, Banffshire, where his father rented a small farm. He received most of his education at the parish school of Fochabers, and, when 16 years of age, he was apprenticed to Mr. Christie, nurseryman, Fochabers, [in whose nursery in those days there was grown a good general stock. New shrubs were always added as they came out, and this gave William Paterson an excellent opportunity of acquiring a knowledge of their names, mode of propagation, &c., as well as the management of nursery stock. From Fochabers Mr. Paterson removed to Aberdeen, where he entered the then celebrated nurseries of Messrs. Roy & Sons, and he remained there for two years, acquiring a still wider knowledge of his profession. Thence he entered the service of the Duke of Leeds at Old Mar Lodge, Braemar (a few miles above Balmoral Castle), where he remained two seasons. In 1847, on the recommendation of Mrs. Farquharson, of Invercauld, Mr. Paterson was appointed head gardener to Sir Robert Gordon, at the old castle of Balmoral, which occupied a site not far from the present stately pile. Balmoral was at that time leased by Sir Robert from the then Earl of Fife. Only three days after Mr. Paterson's appointment Sir Robert died, and Her Majesty the Queen then took over the remainder of the lease, on the expiry of which she purchased the Balmoral estate. It was at Martinmas, 1847, that Mr. Paterson went to Balmoral, and in August of the following year he was formally appointed to the position from which he only retired in 1892, in consequence of declining health. A pension was granted him by Her Majesty, who also placed the beautiful Daisy Cottage at his disposal, where with his wife, who survives him, he spent the concluding years of his life, enjoying every comfort. Five years ago Mr. Paterson underwent an operation at the hands of Professor Ogston, of Aberdeen University, which was successfully performed, and prolonged his life, although latterly he suffered a good deal of pain. If anything could have alleviated those sufferings, it would have been the constant solicitude for his comfort shown by Her Majesty the Queen, Princess Henry of Battenberg, and other members of the Royal Family. During his last illness he was attended twice a day by Sir James Reid, Her Majesty's private medical man. Mr. Paterson had a thorough knowledge of his profession. He was not only a successful florist, but he had a wide and accurate knowledge of shrubs and trees, and he was possessed of excellent taste. Few could with more skill produce a bouquet or decorate a table.

Mr. Paterson leaves a widow, one son and three daughters. The son is Lieutenant Paterson, 1st Vol. Bat. Gordon Highlanders, Aberdeen, one of the best-known shots in Scotland. The funeral took place on Thursday, the 9th inst., at Crathie Churchyard Balmoral.

**Alexander Simpson Smith, Gardener and Naturalist.**—The death, at the age of 59 years, is announced of Mr. Alexander Simpson Smith, head gardener at Castletown, in which capacity he had served the family for nearly thirty-five years. Mr. Smith came originally from Aberdeen, where he and a younger brother, who at the present time is head gardener to Lord Rosebery at Mentmore, served their apprenticeship, and afterwards became distinguished members of their craft. Mr. Smith's quiet and unobtrusive manners endeared him to all with whom he came in contact. He took a lively interest in every social movement affecting the good of the district in which he so long resided, and in which the influence or his gentle life will not soon be forgotten. Mr. Smith leaves a widow, three sons and one daughter. His remains were interred in the Castletown family burial ground in Rockliffe Churchyard. Mr. Smith was a born naturalist as well as a most enthusiastic sportsman. His interest in zoology was not limited to ornithology. He observed wild life too lovingly to limit his interest to any one section of natural history Many naturalists residing in other parts of England have enjoyed the rare privilege of being introduced to the bird-life on the Solway Marshes by Mr. Smith. He was at all times very ready to supply information about local natural history when the *Birds of Cumberland* was in preparation. Mr. Smith was also a regular contributor and subscriber to the *British Rainfall*, edited by Mr. G. J. Symons, F.M.S., several copies of the annual record having been presented to Tullie House by Mr. Smith.

[The term "accumulated temperature" indicates the aggregate amount, as well as the duration, of degrees of temperature above or below 42° Fahr. for the period named: and this combined result is expressed in Day-degrees—a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| Districts. | Temperature. Above (+) or below (−) the Mean for the week ending October 3. | Temperature. Accumulated. Above 42° for the Week. | Below 42° for the Week. | Above 42°, difference from Mean since December 29, 1895. | Below 42°, difference from Mean since December 29, 1895. | Rainfall. More (+) or less (−) than Mean for the Week. | No. of Rainy Days since Dec. 29, 1895. | Total Fall since Jan. 1, 1896. | Bright Sun. Percentage of possible Duration for the Week. | Percentage of possible Duration since Dec. 29, 1895. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | 10ths Inch | | Ins. | | |
| 0 | 1 − | 44 | 0 | + 240 | − 324 | 3 + | 187 | 41·8 | 16 | 24 |
| 1 | 0 aver | 55 | 0 | + 191 | − 246 | 2 − | 155 | 19·8 | 27 | 30 |
| 2 | 1 + | 72 | 0 | + 268 | − 223 | 4 − | 131 | 14·5 | 32 | 29 |
| 3 | 0 aver | 72 | 0 | + 219 | − 230 | 5 − | 132 | 17·2 | 32 | 36 |
| 4 | 1 + | 72 | 0 | + 225 | − 250 | 3 − | 131 | 17·2 | 28 | 32 |
| 5 | 0 aver | 85 | 0 | + 300 | − 241 | 5 − | 120 | 16·9 | 33 | 38 |
| 6 | 1 + | 69 | 0 | + 284 | − 230 | 2 − | 165 | 33·5 | 21 | 32 |
| 7 | 1 + | 78 | 0 | + 361 | − 259 | 0 aver | 149 | 25·1 | 21 | 32 |
| 8 | 0 aver | 81 | 0 | + 403 | − 207 | 0 aver | 129 | 20·9 | 32 | 41 |
| 9 | 1 + | 68 | 0 | + 291 | − 234 | 2 + | 171 | 30·0 | 15 | 28 |
| 10 | 1 + | 79 | 0 | + 391 | − 212 | 1 + | 146 | 26·2 | 23 | 33 |
| * | 0 aver | 103 | 0 | + 531 | − 109 | 2 − | 138 | 17·9 | 31 | 47 |

The districts indicated by number in the first column are the following:—

0, Scotland N. *Principal Wheat-producing Districts*—1, Scotland, E.; 2, England, N.E.; 3, England, E.; 4, Midland Counties; 5, England, including London, S.

*Principal Grazing, &c., Districts*—6, Scotland, W.; 7, England, N.W.; 8, England, S.W.; 9, Ireland, N.; 10, Ireland, S.; *Channel Islands.

Oxford Dictionary of National Biography

**Paxton, Sir Joseph** (1803–1865), *landscape gardener and architect*
by John Kenworthy-Browne
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**Paxton, Sir Joseph** (1803–1865), landscape gardener and architect, was born on 3 August 1803 at Milton Bryan (or Bryant) in Bedfordshire, the youngest of the eight children of William Paxton (1758/9–1810), an agricultural labourer, and his wife, Ann Rooke (1760/61–1823), who is said to have come from Whaddon Chase, Buckinghamshire.

## Early years and training

Joseph Paxton attended the free school at Woburn, and is said to have been a garden boy to Sir Hugh Inglis at Milton Bryan Manor. At the age of about fourteen he was placed under his elder brother John, the gardener at Battlesden, the estate of Sir Gregory Page Turner, where his father had also probably worked. He was later apprenticed for two or three years to William Griffin, the gardener to Samuel Smith of Woodhall Park, Watton, Hertfordshire, who was famous for his skill in fruit growing. In 1821 he returned to Battlesden, where he helped construct an ornamental lake of 13 acres, again under the direction of his brother.

In 1823 Paxton's mother died and he went to work at Wimbledon House, Surrey, where the gardener was another brother, probably James Paxton. He was unsettled there and seems to have left for Lee and Henderson's nursery garden in Kensington. On 13 November that year, recommended by Samuel Smith, he was formally admitted by the Horticultural Society of London as a student gardener at the new experimental garden at Chiswick. When giving the required specimen of his handwriting he wrote that he was born in 1801, an untruth which has caused confusion ever since. The following year he was promoted to foreman in charge of the arboretum, covering 33 acres, and his weekly wage was raised from 14 to 18*s*. In 1826, ‘owing to some misunderstanding with the authorities of the Society’ Paxton intended to go to America (*Journal of Horticulture*, 446), but the duke of Devonshire intervened. The sixth duke was the landlord of the society's grounds, and, liking to stroll there and talk to young Paxton, he asked him to be head gardener at Chatsworth, his country house in Derbyshire. The duke is said to have been impressed with Paxton's bearing and general intelligence, but the deciding factor was his good manners: the duke was quite deaf, and Paxton took trouble to speak so that he could hear.

## Chatsworth, 1826–1850

Paxton arrived at Chatsworth on 9 May 1826 and started work on a salary of £70 per annum. Returning to his estate after an absence abroad of seven months, the duke noted in his journal: ‘my new gardener Paxton has made a great change’ (Cavendish, journal, 10 Dec 1826). Although hitherto hardly interested in gardening, the duke became enthusiastic. He visited nursery gardens with Paxton for the latest plants and took him on garden tours in England and Paris. In 1838 the duke became president of the Horticultural Society, and that year, accompanied by Paxton, he set off on a seven-month grand tour of Europe, visiting Switzerland, Italy, and Turkey. By degrees a close friendship arose between duke and gardener.

In 1844 Paxton, by now his confidential adviser, found the means to release his employer from an accumulated debt of nearly £1 million by producing a ready buyer, the railway entrepreneur George Hudson, for two Yorkshire estates.

On 20 February 1827 Paxton married Sarah Bown (1800–1871), whose father was a small engineer and mill owner at Matlock, Derbyshire, and whose aunt Sarah Gregory was housekeeper at Chatsworth. They were a devoted couple, Sarah having a strong character and sensible conservative outlook. ‘Without a good wife’, Paxton remarked many years later at the *Punch* dinner table, ‘a man can't well succeed’ (Silver). Six of their eight children survived, but their only son, George, turned out feckless and unpredictable.

Paxton's responsibilities at Chatsworth steadily increased. He was in charge of the woods in 1830 and of the roads in 1837, and by 1849 he was agent for the Chatsworth estate at a salary of £500 per annum. From 1844 he was also agent for the duke's estate at Bolton Abbey, Yorkshire, while at other properties, particularly Chiswick House, Middlesex, and Lismore Castle, co. Cork, the duke seldom made any changes without consulting Paxton.

Under Paxton's care, Chatsworth became the most famous garden in England. Largely self-taught, Paxton always encouraged the young gardeners (who included John Gibson, Edward Milner, Edward Kemp, and George Eyles) to study and improve themselves. Among his works at Chatsworth were the pinetum (1829), the arboretum (1834–5, with plants classified according to the system of Jussieu), whose cost was entirely defrayed from the sale of timber cleared off the site, and the orchid collection. He also designed numerous greenhouses and hothouses, using for many of them his own version of the ridge-and-furrow roof. They culminated in the conservatory or great stove (1836–41), a vast glass building with a double-curved framework of laminated wood, measuring 227 by 123 feet and 67 feet high. No glasshouse on this scale had ever been built before, and the cautious duke brought in his architect Decimus Burton as consultant; however, the design and its execution were undoubtedly Paxton's alone. To make the 20 or so miles of moulded sash bar the building required he invented a steam-powered cutting machine, for which in 1840 the Royal Society of Arts awarded him their silver medal. He constructed the rock gardens (from 1843) and designed and built the emperor fountain (1844), so named after Emperor Nicholas I of Russia (who, however, failed to visit Chatsworth), which, with a jet more than 260 feet high, was the tallest in the world. No new task was ever begun without the approval of the duke, with whom in many cases the idea had originated. But when the duke saw the scale of the works necessary for the great stove and the fountain he was quite alarmed.

Paxton's gardening was based on the published works of the Scottish encyclopaedist John Claudius Loudon. In the *Gardener's Magazine* of July 1831 Loudon published a long criticism of the Chatsworth gardens to which Paxton replied two months later in his own paper, the *Horticultural Register*, giving Loudon a mild rebuke. But by 1835, their quarrel over, Paxton and the Scot remained close and mutually supportive friends. Paxton made other lasting friendships with the botanists John Lindley and Sir William Hooker. With the help of the latter he arranged plant collecting expeditions: to Mexico (1835), unsuccessfully, and to California (1838), which ended in disaster when a boat party including two young Chatsworth gardeners was drowned on the Columbia River. But in July 1837 his assistant John Gibson returned from Calcutta with many fine new orchids, and the greatly coveted *Amherstia nobilis*. This much famed temple

tree was taken to Chatsworth but failed to flower there. Paxton achieved notable success, however, in 1849, when the duke persuaded Hooker to send a small plant of the Amazon lily *Victoria amazonica*, which was ailing at Kew. Within three months Paxton had it flowering. It grew so rapidly that the following year he designed for it a new lily house, a rectangular glass lanthorn with horizontal ridge-and-furrow roof. In this simple building was the basic design of the Crystal Palace.

**Architecture and private works to 1850**

Paxton's first work as architect was the rebuilding, from 1837, of most of the cottages in Edensor village. It seems irregular for the duke to have given this job to his gardener rather than the clerk of works, but evidently Paxton had impressed him with ideas for a model village in the ornamental and 'historic' styles illustrated in Loudon's *Encyclopaedia of Cottage, Farm and Villa Architecture* (1833). Paxton in fact obtained designs from Loudon's principal draughtsman, John Robertson, who by 1840 was working full-time in Paxton's office and, besides Edensor, designed many ornamental houses at Chatsworth and elsewhere.

Paxton's private work in the 1840s was in every case undertaken with the duke's permission. In 1838 he assisted John Lindley in a report on the royal gardens. In 1842 he laid out Prince's Park, Liverpool. For Sir William Jackson between 1843 and 1847 he created the much greater Birkenhead Park out of a low-lying swamp, together with designs for five ornamental lodges. In 1845–7 he laid out the cemetery at Coventry, with an Italianate lodge and chapels in the Norman and Greek styles. As landscapes these were all pioneering works that influenced public park design throughout the nineteenth century. When F. L. Olmstead designed Central Park, Manhattan, his principal example was Birkenhead Park. Paxton also received commissions from a number of private patrons, notable among which was Burton Closes, near Bakewell, Derbyshire, a gentleman's villa in early Tudor style, with conservatory, lodge, and grounds, which he built for his stockbroker John Allcard; the interior and decoration, carried out by John Gregory Crace, was partly designed by Pugin. All of the above buildings were designed by Robertson, who some time after 1847 was replaced in Paxton's office by George Henry Stokes (1826–1871), a young architect whose name appears first in connection with the Coventry cemetery.

Although his education had been meagre, Paxton developed remarkable fluency in writing and public speaking. His first essay in publishing was the *Horticultural Register*, a monthly magazine for practical gardeners, which at first he edited with Joseph Harrison (the gardener at Wortley Hall, near Sheffield). It ran for five volumes (July 1831 through 1836), the format and admittedly much of the content taken from Loudon's *Gardener's Magazine*. Being considerably cheaper and easier to read than the latter, it took away much of Loudon's readership. Paxton's next monthly magazine, *Paxton's Magazine of Botany*, ran for sixteen years (1833–48) and was very popular. In both magazines he described many of his plants and innovations at Chatsworth, though, curiously, he never wrote about the great stove. *Paxton's Flower Garden*, his last magazine, was edited with John Lindley for three years (1850–52). In 1838 he published a little book, *The Cultivation of the Dahlia*, a work he had actually begun in 1825; it was translated into French and German, with introductions by Jussieu and Alexander von Humboldt, and into Swedish. In 1840 he published *The Pocket Botanical Dictionary*, which he had compiled with Lindley.

Also in 1840 Paxton, with Lindley, Sir C. W. Dilke (1810–1869), and William Bradbury, founded a weekly newspaper, the *Gardener's Chronicle*. Paxton's actual

part in it was small because the duke expressed a ‘great objection to your being connected with a newspaper’ (Paxton archive, letter 91). But apparently owing to the considerable success of the *Chronicle*, the duke made no objection in 1845 when Paxton and Bradbury founded the *Daily News*, a newspaper intended to be the Liberal rival to *The Times*. Paxton himself raised £25,000, half of the initial capital. Edited by Charles Dickens, the first issue appeared in 21 January 1846, but it was a disaster. Dickens quit after three weeks and was replaced by Dilke's father (1789–1864); the paper survived, but for many years any profit was small. The staff of *Punch* magazine (owned by Bradbury and Evans) helped with the opening issues: John Lemon, Douglas Jerrold, and John Leech were among his intimate friends. Paxton, a welcome guest at the legendary *Punch* dinners, was the only outsider allowed into their jovial, Bohemian circle. It has been said that he supported *Punch* financially.

From about 1842 Paxton became increasingly rich. This seems likely to have been the result of speculation in railways, in which he had been an early if modest investor. George Stephenson rented Tapton House, Chesterfield, in 1838, when working on the North Midland Railway, and being both a neighbour and a keen gardener he became Paxton's close friend and, through Stephenson, Paxton met George Hudson. At the height of the railway mania of 1845–6 frantic letters between Paxton and Sarah, his wife, were chiefly concerned with share prices. The *List of Subscribers* to the railways, which was published for 1845 and for 1846, shows Paxton to have subscribed £35,000 and £101,750 respectively. He was a director of certain railway companies, including the Furness Railway, the Midland Railway, and, where he was particularly active, the Matlock Railway, which passed just south of Chatsworth.

**The Crystal Palace**

Paxton's involvement with Prince Albert's Great Exhibition came about almost by chance. The exhibition was due to open on 1 May 1851, but less than eleven months before that date the building committee had not yet completed their design for the building in Hyde Park. On 7 June 1850 Paxton, in London, happened to tell a friend, John Ellis, that he had an idea for it; the same day Henry Cole at the Board of Trade said that the committee might still consider a new design. Paxton's drawings, which were presented on 21 June, were based on the as yet uncompleted lily house at Chatsworth, but extended in three dimensions: the building was to cover 19 acres, the roofs rising in great steps to provide galleries at two levels. The posts and trusses of this huge greenhouse were to be of iron; the floors, window sashes, and roof structure were of wood. Paxton immediately opened negotiations with the contractors, Messrs Fox and Henderson of Smethwick, and with Chance Brothers, who had supplied glass for the great stove. His design, published in the *Illustrated London News* on 6 July, was reluctantly approved by the committee on 26 July, partly on its merits but also because the contractors had given the lowest of all the tenders. One of the many advantages of Paxton's design was rapid construction, on account of the use of dry components and the standardization and prefabrication of every part. Yet it was chiefly through Charles Fox's determined efforts that the building was handed over to the exhibitors by 1 February 1851.

Paxton's Crystal Palace (so named by Douglas Jerrold in *Punch*) instantly turned public hostility towards the exhibition into excited anticipation. The *Illustrated London News* followed its progress week by week. Paxton's ferro-vitreous building was a novelty both in functional design and in modular construction; aesthetically too it proved to be more interesting than was expected. It won two council prize medals, one for the design and one for the construction. Paxton and Fox were

awarded knighthoods, and to Paxton, who in order to lower the tender had waived his fee, Prince Albert gave £5000 out of exhibition profits. But the architectural establishment, vociferous in *The Builder*, was indignant that a gardener had succeeded where they had failed, and pointed out that in choosing Paxton's late design the commission's action was altogether irregular; that although Paxton was the designer there was no architect, since the technical part, detailed drawings, and execution were left entirely to the contractor; and that the design breached the competition rules, which disallowed galleries and forbade the use of wood and other combustible materials.

Before the close of the exhibition Paxton was campaigning for the retention of the Crystal Palace as a winter garden. The public generally were in favour of keeping it in Hyde Park, but the prince wished the building moved, and on 29 April 1852 parliament voted for that. Immediately the directors of the London, Brighton and South Coast Railway floated a company to buy the materials and re-erect the building at Penge Park, near Sydenham, Kent, to be open for the recreation and instruction of the public. Although he was not actually a director of the company, Paxton was indispensable to the whole scheme. Assisted by the contractor John Henderson he redesigned the building, supervised the winter garden, and laid out the terraced garden and park. The initial capital was £500,000, and in anticipation of high dividends the enterprise was heavily oversubscribed. But after two years the estimate was greatly exceeded, partly owing to the expenses of the building but, more culpably, because of Paxton's ambitious water gardens, which were intended to excel those at Versailles. The whole extent was depicted in a panoramic drawing by James Duffield Harding, exhibited at the Royal Academy in 1854 (Royal Institute of British Architects, drawings collection, London). The final estimate was £1,300,000. Share prices fell disastrously, but at the turbulent shareholders' meetings it was not Paxton but the directors who were held to blame. The Crystal Palace Company never in fact recovered from his extravagance.

If the Crystal Palace was an investor's nightmare, it was a great success with visitors. Queen Victoria was enchanted and opened the building, with the winter garden, historic courts, and sculpture, on 10 June 1854; the water gardens she opened on 18 June 1856. In order to attract crowds, the gardens were bedded out with high colour, a scheme reviled by William Robinson and others of the ‘natural’ gardening school. But in spite of bankruptcies and other vicissitudes, until the fire of 30 November 1936 Paxton's creation at Sydenham filled the contemporary need for a vast concert hall, exhibition palace, and open-air theatre for every kind of great public show. In 1857, and then triennially from 1859, Handel festivals were held in the central transept.

In 1851 Paxton had expected to lead a ferro-vitreous revolution in building construction, but it did not happen. In 1851 he designed a modestly sized crystal palace for New York, and in 1862 a much larger one with three domed transepts for St Cloud, Paris, intended for the 1865 Paris Exhibition, but neither was built. From 1853 he occupied Rockhills, a Regency house at the north end of the Crystal Palace, which the company gave him free of rent for his lifetime.

**1851–1865**

Paxton continued his architectural career alongside work at the Crystal Palace, building Mentmore, Buckinghamshire (1850–55), a grand country house in the Elizabethan style of Wollaton Hall, Nottinghamshire, for Baron Mayer Amschel de Rothschild; and for Baron James de Rothschild the larger Château de Ferrières (1853–9) near Paris, which was generally acknowledged to be the finest of French

nineteenth-century châteaux. From 1849 the duke of Devonshire took a renewed interest in his Irish property, Lismore Castle, co. Cork. In 1850 Paxton rebuilt the ruined hall (with decorations by Pugin and Crace) and later the buildings on three sides of the courtyard. Paxton's architectural assistant, G. H. Stokes, married his eldest daughter, Emily, in 1853, and became his architectural partner. They had London premises, and by 1859 had settled at 7 Pall Mall East.

Paxton had many interests, and at the select committee on metropolitan communications in June 1855 he submitted his solution to London's traffic congestion, which was a ‘girdle’, or ring road, to link up the stations City and Parliament, lined on either side by shops, residences, and an atmospheric railway, all covered by an iron and glass roof. This visionary idea, for which a perspective drawing known as *The Great Victorian Way* survives at the Victoria and Albert Museum, London, raised much interest, but the eventual solutions to the traffic problem were the Metropolitan Railway and the Victoria Embankment. During the Crimean War, Paxton organized thousands of the workmen who had finished at the Crystal Palace to go to the Crimea, to be an Army Works Corps and build roads.

A Liberal in politics and a member of the Reform Club since 1847, Paxton was returned unopposed in November 1854 as one of the two members of parliament for Coventry, a seat which he retained until his last illness. In the house he spoke only occasionally, but with effect, particularly in 1860, when he moved for and subsequently chaired the select committee on the Thames Embankment. It was largely owing to Paxton's exertions that the Embankment was built shortly afterwards, combining London's low level sewer, the Metropolitan Railway, and a new thoroughfare.

During Paxton's frequent and long absences business at Chatsworth continued, with Lady Paxton supervising the wages and estate books. After the duke's death in 1858 Paxton had to resign his position at Chatsworth, his place being taken by a cousin of his wife, John Gregory Cottingham. The gardener's house at Chatsworth, which had been enlarged several times, was kept by the Paxtons for their lifetime. With time now to spare, Paxton was increasingly involved with railway contracts, principally with his friends Thomas Brassey and George Wythes. He had interests in railways in Spain, Mauritius, India, and Argentina. In order to survey the Bilbao and Miranda Railway he went with Brassey to Spain in three consecutive autumns (1859–61).

Paxton was a fellow of the Linnean Society (1831); honorary fellow and vice-president of the Horticultural Society; member and vice-president of the Royal Society of Arts; associate of the Institution of Civil Engineers (1851); and a knight of the Russian order of St Vladimir (1845). In stature he was short and he became stout. A flattering engraving after Octavius Oakley, published by Paxton on 1 May 1851, shows him with characteristic long hair, quiff, and whiskers—still a dandy, with white trousers and hat. A marble bust by Edward Wyon (1864, Royal Horticultural Society, London) shows him, though only sixty, to have greatly aged.

Paxton's health had deteriorated because of the difficulties with the Sydenham Crystal Palace. Early in 1863 he collapsed, probably from a heart attack, and he never really recovered. His last professional work was to lay out the park at Dunfermline, Fife, which he and Stokes surveyed in September 1864. He died on 8 June 1865 at Rockhills, where Mr and Mrs Gladstone were among his last visitors. He was buried at Edensor on 15 June and left a personal estate valued at just under £180,000.

Paxton ‘rose from the ranks to be the greatest gardener of his time, the founder of a new style of architecture, and a man of genius, who devoted it to objects in the highest and noblest sense popular’ (*The Times*, 9 June 1865). Of his energy and enterprise there is no question. His skill with plants was equalled by a keen eye for the picturesque, which is evident at Edensor village, in the siting of great houses, and in his public parks. He was a natural engineer for whom no task seemed insuperable. His genius was evident while the great stove and the Crystal Palace were yet standing, but his glasshouse technique was short-lived. The ridge-and-furrow roof was virtually obsolete by 1870. The ferro-vitreous building, apart from winter gardens, had few successors until the twentieth century, when many architects found in the 1851 Crystal Palace a model of functional and modular structure. In architecture, again self-taught, Paxton was competent but unexciting, and his achievement depended largely on his relationship with the duke of Devonshire. He relished adulation, but his integrity has never been in doubt. Popular and universally respected, he had a strong gift for friendship, and for long afterwards many people recalled his kindness.

JOHN KENWORTHY-BROWNE

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**Archives** Chatsworth House, Derbyshire, archive, incl. corresp. | Beds. & Luton ARS, parish records, Milton Bryan, etc. · Durham RO, letters to Lord Londonderry's agent · ICL, Royal Commission for the International Exhibition of 1851 · RBG Kew, letters to Sir W. J. Hooker · RBG Kew, Lindley corresp. · UCL, corresp. with Edwin Chadwick

**Likenesses** H. P. Briggs, oils, 1836, Chatsworth House, Derbyshire · T. Ellerby, oils, 1843, Chatsworth House, Derbyshire · J. Jenkins, stipple, 1851? (after photograph by Kilburn), BM, NPG · S. Reynolds, engraving, pubd 1851 (after O. Oakley), BM · H. W. Phillips, group portrait, oils, 1853 (*The royal commissioners for the Great Exhibition of 1851*), V&A · E. Wyon, marble bust, 1864, Royal Horticultural Society, London · J. G. Crace, photograph, V&A · J. H. Lynch, lithograph (after daguerreotype by W. E. Kilburn, 1851), Linn. Soc. [*see illus.*] · O. Oakley, watercolour drawing, NPG · photograph, NPG · wood-engraving, NPG; repro. in *ILN* (24 June 1865)

**Wealth at death** under £180,000: probate, 4 Sept 1865, *CGPLA Eng. & Wales*

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John Kenworthy-Browne, ‘Paxton, Sir Joseph (1803–1865)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/21634, accessed 28 Nov 2014]

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likely to attain a large size, or to have a very prolonged existence. And yet, at the same time, these trees may be apparently in the most perfect health. This remark applies equally to individuals which belong to species naturally long lived, and which attain a large size.

Again, plants which become unhealthy, from whatever cause, may frequently be seen covered with seeds, thus hastening their own death in order to leave behind them representatives of themselves. Indeed the knowledge of this circumstance is often used by gardeners to restore the vigour of unhealthy specimens. They pluck off the blossoms and prevent the plants from exhausting themselves by the production of seeds, and in this way a plant is oftentimes restored to health in spite of itself.

We are accustomed to consider all the plants of a species to be exactly alike, but this is a very mistaken idea. If we suppose, for example, that seeds have been produced by any individual species, which has been even fertilized by its own pollen, yet each seedling will differ in some respects from every other, in the same way that every member of the human family differs from his neighbour. Who ever saw two men exactly alike? The difference consists not only in form but also in constitution. Some are tall, while others are dwarf, some are strong and healthy, while others are sickly or diseased. And as a general rule the peculiar qualities of each will descend to, and be inherited by, its offspring.

Such being the case in this "struggle for life" in the vegetable kingdom, it becomes a matter of the first importance to take care that the seeds of all our plants, and of forest trees in particular, are collected from healthy and vigorous specimens, and in localities where they arrive at the greatest state of perfection. Unfortunately seeds are much more readily and easily procured from plants such as we have alluded to above, than from the more valuable and long-lived individuals. Seed collectors at home and abroad are much more likely to get an abundant and ready supply from individuals that produce seeds while young, or in consequence of ill-health, or from other causes detrimental to the species, than they are from those which we are accustomed to call the true kind, namely, that which attains to the highest state of perfection as regards beauty of form, size, and the production of valuable timber.

It is to be feared that the main object with collectors of seeds is to procure a quantity of that which is good-looking and likely to germinate, without reference to the condition of the trees which have produced it. And yet the condition and constitution of the parent tree—whether it is of its full natural size and in perfect health, or whether it be what we would call an inferior or worthless variety, or a specimen in ill-health—is really of very great importance to those persons who may become the possessors of plants which have been raised from its seeds. We would, therefore, venture to impress upon all who collect Fir seeds, whether in the Highlands of Scotland, or in California and other parts of the world, that it is a matter of the first importance to *select* as well as collect their seeds from specimens which grow in the best localities, and which are healthy in constitution and fully grown.

Whatever may be the ultimate verdict of our experience as to the value of home-grown seeds of exotic Fir trees—whether we may find that owing to climate and other influences they are worthless in this country, or whether in certain localities they may be as valuable as those of foreign growth, as some information from practical men which has come to our knowledge would seem to indicate, we have one thing to look forward to with no little pleasure. In these days of steam transit to every part of the globe, we can have no difficulty in procuring abundant supplies of our favourite Pine seeds direct from the countries to which the trees are indigenous. California and other parts of North America, the Indian Himalayas, together with China and Japan, are all accessible to collectors, upon whom we would once more impress the importance of selecting their seeds from healthy and full-sized trees. *F.*

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WE have received from the Hon. D. FINCH a drawing of a DOUBLE APPLE BLOSSOM, as completely double as any double Rose could be. The flower seems to have been larger than ordinary, and to have possessed a regular calyx, within which latter were very numerous petals, probably replacing the stamens. No trace of styles or fruit is to be seen. The flower was produced subsequently to the others on the tree. The same tree furnished another malformed flower, which Mr. FINCH has been good enough to transmit for our examination. The flower stalk bears at its extremity a circlet of five perfect stalked leaves, smaller than the ordinary ones, and destitute of stipules; within these are two smaller leaves, immediately outside the calyx, whose segments are of the usual form and appearance. The petals also are normal in number and form; there are numerous stamens, and five styles, but no trace of ovary or fruit. The explanation of this second flower seems to be this. An attempt was made to form a leaf-bud in the first instance; the seven leaves outside the calyx are portions of this bud. Then comes the true calyx, and the other organs of the flower minus the fruit. The energy of the plant had been expended in the formation of the leaves outside the flower, and hence the swelling

of the top of the flower stalk, which under ordinary circumstances contributes so much to the formation of the succulent fruit of these plants, has not taken place.

Pomologically these aberrations are extremely undesirable; florally, hardly less so; botanically, they possess much interest. We may note by the way that double Apple blossoms are not mentioned in Dr. SEEMANN's list of Double Flowers published in the second volume of the *Journal of Botany*.

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—— A CURIOUS plant was lately sent us for determination, which we at once saw was some PODOSTEMAD, and the opportunity of a closer investigation seems to show, though the specimens are in a wretched state, that it is that form of Marathrium utile, *Tul.*, which is figured by TULASNE at Fig. 2 of the second plate of his admirable memoir. The species is found in New Grenada, where it is called Gramma de aqua, or Waterweed. In an early stage of growth it has large oblong coarsely lobed and toothed green fronds, which bear at the point of confluence with the rhizome bunches of flowers, the peduncles of which are dilated above and cup-shaped. It derives its specific name from the fact that oxen greedily devour the fronds, while a soothing drink said to be useful in fever and affections of the bowels is prepared from them.

Podostemads are amongst the most remarkable of dicotyledons from their having the habit of Liverworts and Scale Mosses (Jungermanniæ). They are aquatic plants, for the most part attached to rocks or trees in rapids, and sparingly, if at all, supplied with vascular tissue. Some of the species bear so close a resemblance to Cryptogams that one is figured by WILLDENOW as a Liverwort, under the name of Blandowia striata, while another is given under the same name in STURM's "Deutschland's Flora," and a third, Dicræa Wallichii, is published as a Liverwort by TAYLOR in the Transactions of the Irish Academy. Tristicha alternifolia was also described as a Cryptogam by WILLDENOW.

There has been a good deal of speculation about the affinities of these curious plants. Dr. LINDLEY considers them as allied to the Elatinaceæ, but some good Botanists regard them as more probably reduced Lentibulariaceæ, an opinion which was unjustly ridiculed in a review by ASA GRAY of "The Introduction to Cryptogamic Botany." TULASNE, in his admirable treatise, does not express any distinct opinion on the subject, though he inclines to Geraniaceæ. The species are almost entirely confined to the tropics, and only in a few cases are found in stagnant water, or where water has subsided, and never in lagoons.

Two-thirds of the species at present known are found in America, the others are scattered over Asia, especially the western parts, the Mascaren Islands, Madagascar, and South Africa. Of the extratropical species two occur in South Africa; and one, which has a wide distribution in the east of North America, from the 30th to the 40th degree of north latitude, is said to flourish even where the water is frozen.

Apinagia Preissii is said to have been found in the South of Europe, but this requires confirmation.

—— The APPLE CROP IN DEVONSHIRE will, it is said, this year prove a failure, in consequence of the prevalence of what is called "blight." The trees in the orchards are described as presenting a very melancholy appearance, for instead of clusters of young Apples, scarcely anything can be seen but riddled leaves and grey mildew. This destruction of a useful and profitable crop will prove a great loss. The "blight" is caused by the caterpillars of a small winter moth, Cheimatobia brumata. The remedy suggested for getting rid of these agents of destruction is to burn rubbish under the Apple trees in early spring—a practice adopted with great success by Mr. BARNES, gardener to Lady ROLLE at Bicton.

—— We may remind those ladies who intend to compete for the Prizes for INDOOR PLANT-CULTURE offered by the Proprietors of this Journal, and to be awarded at the Royal Horticultural Society's Special Show on the 24th of June, that Monday next, the 19th inst., is the last day for giving notice of their intention to the Garden Superintendent at South Kensington. The conditions will be seen in our advertising columns.

—— The papers state that M. HAUSSMANN is about to sacrifice the beautiful GARDEN OF THE LUXEMBOURG to his hobby of Parisian "embellishments." A large portion of the garden will be taken by the municipality for building purposes.

—— ASPARAGUS shoots are very often the subjects of fasciation, a flattened and dilated condition of the stem, due in some cases, but not in all, to the fusion of several shoots into one. Gardeners will be familiar with this appearance in the Cockscomb. Can the gigantic sticks mentioned in the subjoined extract from the "Journal of the Society of Arts," June 9, 1865, be the result of fasciation?:—"Enormous heads of Asparagus have recently appeared in the Paris market, and many guesses have been made respecting the mode of their production. It is said that a large grower was recommended to cultivate the plants not together, as in the ordinary manner, but dispersed amongst other vegetables in his garden, and that the success was beyond all his expectations. The cause of this is not evident, but it may be suggested that probably the experiments were tried in a very warm soil in the south of France, which supplies Paris with an enormous quantity of fruit, Peas, and Asparagus. Having succeeded in obtaining a gigantic growth, the grower tried a further experiment. He placed over each shoot, as soon as it appeared above ground, a glass bottle, or rather a short tube with a bottom to it, pressing the latter down as far as possible into the ground. The consequence of this treatment is the production of enormous heads, each sufficient to make a dish of itself [?], and in some instances weighing nearly a pound. This colossal Asparagus is said to be equal in flavour and as tender as the finest known kinds produced in the ordinary manner."

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## THE LATE SIR JOSEPH PAXTON.

IN the death of Sir Joseph Paxton, which occurred at Rockhill, Sydenham, on the 8th inst., and was briefly noticed in our columns of last week, the country, and the lovers of horticulture and landscape gardening more especially, have lost one who had justly earned for himself an European reputation. He was, indeed, the "Prince of Gardeners" of the present century, and filled the high and honourable position to which he had attained with the greatest courtesy—being alike distinguished for his urbanity and ability, and for the marked success which attended all the works he undertook to perform. We feel confident there is not an individual, high or low, who knew his kind and generous disposition, but heaved a sigh, or let fall a tear of sorrow, on learning that he had been removed by the hand of death from amongst us.

It is now 42 years since the writer of these remarks had the pleasure of making his acquaintance, and while memory retains its place, the happy days he spent in the society of his now deceased friend can never be effaced.

As several erroneous accounts have appeared respecting the early part of Sir Joseph's professional career, we avail ourselves of the present opportunity to correct them, by a brief statement of facts within our own knowledge. He sprang from a good Saxon root at Milton Bryant, Bedfordshire, where his father was a farmer, and where he was born in the year 1801. Having to gain his livelihood by the sweat of his brow, he selected gardening as his profession, and from the age of 15 was for two years employed in the garden of Sir Gregory Osborne Page Turner, Bart., at Battlesden Park, near Milton Bryant. From thence he went to Woodhall Park, near Watton, Herts, the beautiful residence of Samuel Smith, Esq., in whose gardens (then under the charge of Mr. William Griffin—one of the most successful fruit and Pine growers of his day) he continued for three years, and acquired during that

time a thorough practical knowledge of the most important branches of horticulture. On leaving Woodhall he returned to Battlesden, and for two years was gardener there. In the autumn of 1823, being then 22 years of age, he came to London, and found employment in the garden of the Duke of Somerset at Wimbledon. About this time the Horticultural Society obtained a lease of some ground from the Duke of Devonshire, and commenced the formation of the experimental garden at Chiswick, and the erection of the various stoves, greenhouses, and pits that were considered to be necessary for carrying out the objects which the Society had in view. Here an excellent field presented itself for study and improvement to those young men who, like Paxton, had a desire to obtain a thorough knowledge of all the requirements of their profession. Of this Paxton did not fail to take advantage, and, on the recommendation of Joseph Sabine, Esq., who (up to 1830) was the Honorary Secretary of the Horticultural Society, he was admitted on the 13th November, 1823, for improvement in the new garden, and was promoted in 1824 to be foreman of the Arboretum. Here it was that he had the good fortune to become known to his patron and friend, the late Duke of Devonshire, who took great interest in this department of the garden, and frequently applied to Paxton for information respecting such trees and shrubs as seemed new to him, or with which he was unacquainted. The trim and neat appearance by which Paxton was invariably distinguished, combined with his great intelligence, and that genuine manliness of deportment which lies at the root of all good breeding, made a favourable impression upon his Grace, who in 1826 engaged him to superintend his extensive and princely gardens at Chatsworth.

Mr. Paxton had now ample scope afforded him for exhibiting his knowledge and skill as a practical gardener, as well as his natural genius and good taste in landscape gardening and garden architecture. Under his masterly hand, as a contemporary truly observes, "the wild Derbyshire region in which Chatsworth stands became the wonderful place which drew visitors from far and near, and set the example of that princely development of grounds and plaisances which now marks the country seats of our great English families. Its fountains and Italian terraces; its rich woods, laid out and managed with such marvellous care; its hothouses, where the Victoria regia was first compelled to blossom; and the great conservatory, which was the precursor of the Crystal Palaces in Hyde Park and at Sydenham—all are now become familiar objects of admiration. But while Chatsworth attracted the loftiest personages as visitors, its grounds were still left freely open to dense manufacturing populations close at hand, and Paxton used always to dwell proudly upon this trait in the character of "my Duke," as he called him, who was willing to share with the humblest of his countrymen his own passion for flowers."

With the glories of Chatsworth the name of Paxton will long be honourably associated. He had an innate taste for the beautiful in art and nature, but it was one of his great merits that he knew where to stop and let Nature have her own way. Of the truth of this remark abundant evidence will be found in the many beautiful scenes which have been created from his designs, or executed under his superintendence.

But it was not alone in his capacity of a gardener that Paxton gained the favour and esteem of his munificent patron. He had an opportunity of displaying his skill and superior abilities in regard to some financial arrangements which he suggested, and which were attended with so much success, as to induce the Duke to intrust him with the superintendence of his large estates in Derbyshire. With a generous and noble appreciation of his worth the Duke was never weary of speaking in his praise, and hence Paxton's reputation was as great among the aristocracy as amongst those of his own class, who were the best practical judges of his works.

In 1850, when the scheme of the first Great Exhibition was projected, the name of Paxton became a household word. At that time he happened to be erecting a house of peculiar construction, which he had designed for the growth of that most remarkable plant the Victoria regia; and finding that none of the 240 designs that were sent in to the Building Committee accorded with their views of the kind of structure required for the purposes of the Exhibition, it occurred to him to submit a design that would obviate all objections. The result is a matter of history. The fairy structure was erected in Hyde Park, and was the wonder and admiration of all who had the good fortune to witness it, and view the vast amount of valuable articles which it contained. One of the most striking features in the Palace of 1851 was the crystal fountain, and the beautiful transept which covered the two large Elm trees that now remain to mark the spot. It has been reported that the circular roof of the transept was designed by Mr. Barry, and not by Mr. Paxton, but such is not the fact. It is perfectly true that the roof in the original design is flat; but at one of the meetings with the Building Committee it was suggested by them that the transept should include the great trees. Mr. Paxton went direct with Mr. Fox to his office; and while the latter arranged the ground plan so as to bring the trees into the centre of the building, the former was contriving how they were to be covered. At length he hit upon the plan of covering the transept with a circular roof similar to that on the great Conservatory at Chatsworth, and made a sketch of it, which was copied that night by one of the draughtsmen, and shown to Mr. Brunel, whom he had agreed to meet on the ground the next day. We have been thus explicit in order that our departed friend should not be deprived of the merit to which he is justly entitled. For the great services he rendered to the Exhibition her Majesty was graciously pleased to confer the honour of knighthood upon him.

When the time arrived for closing the Exhibition and removing the building, great efforts were made to retain it, and adapt it for a winter garden, or as a place of amusement and recreation for the public; but as this was contrary to the agreement that the Government had made with the residents in the neighbourhood, the idea upon which Sir Joseph had set his mind was reluctantly given up. Nothing daunted, however, he soon obtained a far more eligible site for the purposes he contemplated, and being supported by a powerful Company, he had the gratification of seeing his Crystal Palace reconstructed in a more substantial manner at Sydenham, amidst terraces and fountains, and a glorious landscape of surpassing beauty and extent. This was his crowning work; and we doubt not the millions who may hereafter visit it will regard it as one of the best monuments that could possibly have been raised to perpetuate his memory.

Of late years much of Sir Joseph's time was occupied with other matters than those relating to gardening. He became connected with many of the largest operations of the day, among which perhaps the most conspicuous was the formation of railways; but his greatest delight was to walk through the plant-houses at Chatsworth, and admire the many favourites he cultivated in early life. There he seemed in his element, and his benign countenance—the true index to his large and liberal heart—was always hailed with pleasure by those who had the good fortune to be employed under him. He has been often heard to say that he never took so much interest in the growth of any plant as he did in that of the Victoria regia, of which he obtained a young plant from Kew on the 3d of August, 1849. On the 10th of that month it was consigned to its tank, and by adopting the mode of cultivation which his skill and experience suggested, he had the gratification to perceive a flower-bud on the 1st of November, and was proud to think his name would be associated with this magnificent aquatic, as being the first person who had flowered it in Europe. On the 14th of November a leaf and expanded flower were exhibited to her Majesty and Prince Albert at Windsor; and another flower opened on the 17th, as if to welcome the noble Duke on his return to Chatsworth from Ireland on that day.

Sir Joseph was an industrious writer on horticulture and botany, and, we believe, was also connected with several literary enterprises, among which it may be mentioned that he was one of the founders of the *Gardeners' Chronicle*. He took great interest in the spread of education, and used to attend and give instruction to the young men in his employ, as well as examine and comment on the papers they had prepared for discussion at their evening meetings. Indeed, nothing pleased him more than to lend a helping hand to those who were desirous of improving themselves, and anxious to rise in their profession. He was a Vice-President of the Royal Horticultural Society, a Fellow of the Linnean Society, and a warm friend as well as liberal subscriber to the Gardeners' Royal Benevolent Institution.

In 1854 Sir Joseph Paxton was returned as Member of Parliament for Coventry, and continued to represent that ancient city until his death. He was a Liberal in politics, and voted in favour of every great measure which he thought likely to benefit his fellow man. From the time that he went to Chatsworth, it is not too much to say that the taste for Botany and the pleasing pursuits of gardening received a greater impulse through his exertions, backed as they were by the fostering hand and liberality of his noble patron, than at any former period. The latest improvement for which the gardening world is indebted to Sir Joseph is the introduction of cheap hothouses for the million.

His remains now rest in peace near the beautiful scenes which he loved so well, and did so much to embellish—

> "O'er these his gentle spirit lingers still
> In yon sweet vale, in this enchanted hill;
> Flinging a holier interest o'er the grove,
> Stirring the heart to poetry and love;
> Bidding us prize the fav'rite scenes he trod,
> And view in Nature's beauties Nature's God."

## VARIEGATION.

The subject of variegation is so very interesting that I venture to give a little of my experience, and if others do the same, we may arrive at some better knowledge of its causes than we at present possess.

In looking over the various forms of variegated plants, we find they come principally from China and Japan. We ourselves have occasionally home sports, but in those countries it must be a known art. A year or two ago, when the variegated form of Sedum Sieboldi came out, it was stated, if I am not mistaken, by Dr. Siebold, that he had 'made' it, and his experience among plants may be considered that of a great authority. Now, from close observation I have no hesitation in stating my belief that the dwarfing system, so much carried out both in China and Japan, are the chief causes of the profusion of variegation to be found in both countries. Take the Chinese Elm as one example. I have seen this frequently, both at home and on the Continent, labelled as being 400 years old, 2 feet high, very much in shape like a bush on the side of a high hill, which cold wind and poverty had effectually dwarfed, and growing in flat China dishes 2 inches deep, 1 foot wide, and 18 inches long. I have carefully noted one of these that had been on the place for 70 years, and from one small branch of which came invariably every year a variegated shoot. If this shoot was propagated as a cutting the whole variegation left it, and rampant green shoots were formed. But when grafted upon the Dutch Elm, it not only retained its variegation, but was much improved. Take, again, the variegated form of the Elder. This is easily propagated, and retains its variegation to a certain extent; but by comparing a cutting plant and a grafted plant it will be found that the latter is so much better as not to resemble the other.

The variegated forms of Scarlet Pelargoniums may also be taken in illustration. I cannot say that I understand the term "fixing a sport," as applied to these generally, but there are no plants which afford such an ample field for studying the effects of variegation as these. Let us, for example, take the well-known variety Madame Vaucher. The broad black zone in its leaf recommends it as a likely variety to cross with, particularly if we can transform the broad black zone into a red one, and the green ground to yellow. For this purpose we cross it with United Italy, Mrs. Pollock, &c. It is a most prolific seeder, and the result is that in a batch of seedlings we get a quantity of fine-looking variegated plants; these, however, never get beyond the second or third rough leaf. Next to these in interest are a few with two dark green leaves and one white one, and to these I wish to draw attention as being a puzzle in variegation. If the plants are encouraged to grow on, by the time they are a foot high it will be found that on one side there is a stripe similar to a piece of Ribbon Grass, and if the eye is in this, the corresponding leaf will be variegated—it may be one half, or even a stripe of the smallest dimensions, still perfectly true to that portion of the white stripe in which it is placed. It is the same with eyes; when they break, the shoots are either variegated or partly so, according to the position of the eye in the stripe; but it will be found that these variegated buds require a great amount of coaxing to make them grow out. Again, if we plant out a cross of this sort, it will very soon outgrow the variegated part; but the old stem will continue to show where this new growth commenced, and where the stripe appears to have been absorbed in the exuberant growth of the whole plant. This will continue up to the autumn, when the plant is re-lifted; a check then takes place, and the variegation afterwards again makes its appearance. *F.*

## TRITONIA CROCATA.

This is now rather an old plant, but few, if any, new plants in its way is so useful for conservatory decoration. That many old plants now lost or neglected are far better than those frequently introduced with high praises and higher prices, is a mere truism among gardeners, but I confess to having oftener looked for these "good old things" than to have found them. However, at Cliveden a short time since, I had a very "lucky find." There, in a long span-roofed house—something between greenhouse and intermediate house—a most brilliant and novel effect was produced by a number of plants of Tritonia crocata, in 48-sized pots. The plants were placed at intervals of a few feet, along the edge of either bench, a few inches from the front and behind the small row of dwarf flowering plants that ran along it. From each small pot sprang about a dozen branched flower-spikes, and of these the heaviest laden and fullest in flower fell over and below the front edge of the bench; others were drooping horizontally, and some were nearly erect, so that the passage straight through the house was most gracefully fringed with flowers of a brilliant orange scarlet—almost as effective a colour as that of Tulipa Gesneriana. The individual flowers too are large, and altogether the plant is more desirable than any of its order that I have seen used for greenhouse ornament. It is a great favourite with Mr. Fleming for basket and drawing-room embellishment, and droops over the edges of vases, &c., very gracefully and effectively.

This Tritonia is readily forced, "and may be had in flower six months of the year." The plants seem to have been cultivated in the simplest manner. They are annually shaken out, after going to rest, and 10 or 12 bulbs replaced with the fresh soil in 48-sized pots. Being of easy propagation, a stock will not take long to get, and that accomplished, say to the extent of from 20 to 100 pots, according to the wants of the conservatory, the gardener will find he has a valuable and distinct subject for its decoration. I may add the flower stems were not staked, and that the plants are grown in cold pits when not in flower or required for forcing. *William Robinson.*

Among them were a good specimen of Odontoglossum nævium, several good Aërides and Saccolabiums, Phalænopsis grandiflora, in fine bloom, the South American Cypripedium caudatum, with three blooms, and several of the tail-less members of the same family, Cattleyas and Lælias, the new Phalænopsis Lüddemanniana, Trichopilia suavis in good bloom, &c.

Roses were represented by plants in pots from Messrs. Paul & Son, and cut blooms from the same, Mr. Turner, Slough, A. Smee, Esq., and Mr. Howard, gardener to J. Brand, Esq., Balham.

Of Pelargoniums, both show and Fancy kinds, in excellent bloom, were exhibited by Mr. Fraser, Lea Bridge Road; and from Mr. Turner came a collection of the new kinds sent out by him; one of them, Mary Hoyle, an orange rose with a white eye, and small dark maroon blotch surrounded by orange, was very pretty; John Hoyle, too, is a large and striking flower. Mr. Turner likewise showed Lilium auratum, and pot plants of Sir Joseph Paxton Strawberry. There were besides several exhibitions of Zonale and variegated Geraniums, from Mr. Hally, Blackheath, Mr. Holland, Isleworth, and others.

Of stove and greenhouse plants a good bank was made up by the collections of Messrs. Peed, Rhodes, Baker, Howard, and Wheeler, of Stamford Hill, and Regent's Park. Among them we noticed a plant of the new Clerodendron Thomsonæ Balfourii in fine bloom, several fine Heaths, good Azaleas, Ixora coccinea, Aphelexes, Dicksonias and other Ferns, Dracænas and Marantas, Pleroma elegans, and Dracophyllum gracile in good bloom.

Other objects consisted of numerous Pelargoniums, Fuchsias, and Hydrangeas, from Mr. Hayes, Edmonton; Ferns from Mr. Holland; cut blooms of Orchids from Mr. Bullen; Calceolarias from Mr. Crute and Mr. Forsyth; Pansies from Mr. Porter; seedling Geraniums, a variegated Achyranthes, and Anæctochils from Mr. Aldred; Japanese Aucubas, and Hymenophyllum tunbridgense, from Mr. Wilson; and plant cases, vases, &c., from Messrs. Barr and Sugden, and Hooper & Co., the latter also showing Ixias and Sparaxis.

Fruit was represented by sound, well-kept Dumelow's Seedling, Rymer, and other Apples, and a well-grown Melon from Mr. R. P. Glendinning, of Chiswick. There were also two or three Pines, and some Cherries.

## PROPAGATING FROM BARREN STRAWBERRY PLANTS.

YOUNG MELONS TURNING YELLOW.

Two years ago I forced some British Queen Strawberries in a vinery, and as several plants were blind, but grew splendidly, I had a clayed bed made for them in my garden, where they have remained till now. Not one flower has ever appeared on them or their runners.

Last year I had a number of runners, layered into sunken flower-pots, in a bed of Keens' Seedling, to form a new plantation elsewhere, expecting, as they formed strong plants before winter, to have a good show of fruit on them this summer. In the old bed were many barren plants, and as my gardener knew nothing of the danger of propagating from such, and as most plants in my young bed show only leaves, I think it probable that he found runners most plentiful about the barren old plants, and that my new bed is consequently to be mostly barren also. He grudges throwing away such very fine strong plants, and thinks they will fruit next year. Do you think he is right or not? I believe they would have all fruited this year had they not been naturally barren.

My Melon plants in tubs, in a piped pit, are as strong and healthy as ever man grew, but I am troubled by the young fruit turning yellow before they even blossom, and falling off. Very few set, though every bloom opening is carefully fertilised. One Achapensnoiricher has only one fruit of about 6 inches in diameter, and one of 2 inches; every other has refused to blossom. The plant grows amazingly. A Malvern Hall has plenty of about 3 inches in diameter, but now every female turns yellow before it is the size of a chick pea; and so of other sorts. My tubs stand in cocoa fibre, on four parallel four-inch hot-water pipes. Pray tell me how to mend matters. Some tubs stand on a stone shelf; all turn yellow in them.—J. Mackenzie, M.D.

[We do not think your Strawberry plants will ever do any good; they are evidently some worthless sort that has become mixed with your British Queens. The best thing you can do will be to dig them up at once, trench the ground 2 feet 6 inches deep, if your soil is good, and then mark out fresh beds. Put 3 or 4 inches of good manure in the bottom of every trench, and as soon as you can obtain runners from some sort that you are sure is true, plant them on the beds, and if they are kept well watered until they are established in their new quarters they ought to produce a fine crop next year. By putting the manure in the bottom of the trenches the roots are encouraged to go down after it; and afterwards, however dry the season, it will have little or no effect on the plants. These should be well mulched with partially decomposed leaves or manure in the autumn, to protect the hearts of the plants from frost. Your gardener's idea is evidently wrong.

We think the soil is too rich for the Melons, and that the temperature has not suited them. Subjecting them to a high temperature one day, and to a low one the next, would have just this effect on them; or if they have been allowed to become dry at the roots it would cause them to turn yellow. The atmosphere should be rather dry just at the time they are coming into flower.]

## SIR JOSEPH PAXTON.

With deep and sincere regret we have to communicate to our readers the death of this very able and excellent man. We can add little to what we recorded concerning him more than ten years since, for we then commended him, not merely because he was the most successful among the men of genius devoting themselves to the practice of gardening, but because he was the best example we could uphold for imitation to the rising generation of young gardeners. We are often asked by them, "What acquirements should we strive for besides a knowledge of the culture of plants?" and we know of no better reply that we could give than—Attain the same acquirements as those which were possessed by Sir Joseph Paxton. He was a good botanist, a good draftsman, and an excellent engineer, but he had two spirits mighty in promoting progress, presiding over these—the spirit of kindliness, and the spirit of perseverance. Every one who associated with him at once felt that genial courtesy and frankness which were to be expected from such an open brow; and the late Duke of Devonshire, who so long aided and benefited by his efforts, may be accepted as the most competent of witnesses to his perseverance, and bore this testimony,—"I never knew Mr. Paxton resolve to undertake what he did not fully accomplish."

Sir Joseph Paxton's entire career sustains that characteristic opinion. He was the son of a small farmer, and born in 1801, at Milton Bryant, near Woburn, in Bedfordshire. We accept this date because it is that which he wrote when engaged at the Chiswick Garden.*

The brother under whom Sir Joseph received his rudimentary instruction in horticulture, was Mr. John Paxton, successively gardener, we believe, to Sir G. P. Turner and Earl Hardwicke. This gentleman recommended the young gardener to Abel Smith, Esq., and through the latter's influence he was placed in the gardens of the Horticultural Society at Chiswick. Owing to some misunderstanding with some of the authorities of the Horticultural Society, Sir Joseph was about leaving their service and proceeding to America; but whilst this intention was just on the point of being carried out, it is said that he there first obtained the notice of the Society's President, the Duke of Devonshire, whilst holding a glowing cinder for his Grace's cigar. When Mr. Paxton thus attracted the notice of the Duke of Devonshire, he was foreman in the Arboretum department at Chiswick. This was in 1825, and the year following he became the Duke's head gardener and forester at Chatsworth. Here was an arena just suited to his powers, and genius—not only was the space, as he said, "unlimited," but so were

* He is named in the Report of the Horticultural Society, as one, with many others, who set "an excellent example."—(*Transactions, New Series*, II. 455.)

the funds at his command for its adornment. Writing to Mr. Loudon in 1835, he says:—

"Previously to the commencement of the arboretum, the whole space which it occupies was covered with timber trees: these we have cleared away, so as to suit each genus with light, shelter, or shade, as it might require. The situation, though so much elevated, is yet, by the existing trees, so well sheltered, that, with this aid, our deep trenching, and the supply when necessary, of peat or sandy soil, the plants, in a few years will have made immense progress. There are about 1670 species and varieties already planted; and these will be increased, in a year or two, to about 2000. The whole length of the walk occupied with the arboretum is nearly a mile. The various bends in the walk may be accounted for by the unevenness of the ground, and its steepness in many places. The plants of those orders, the ligneous species of which do not grow large, such as Cruciferæ, Cistineæ, &c., are planted near to the walk, and occupy both sides of it; and the larger ones, although planted similarly along both sides of the walk, are made to extend beyond the others to a considerable distance from it, as the bare inspection of the plan will show. The whole are planted at such distances from each other as their habits of growth require. Should 2000 more hardy trees and shrubs than can at present be purchased in the nurseries be introduced, there is plenty of space on each side of the walk to plant them. It is rather difficult to say exactly how much ground the plants at present occupy, as we have not measured it; but I think the seventy-five groups cover about forty acres.

"It is a great feature in this business, that the ground, the plants, the formation of the walk, the labour, &c., have not cost His Grace sixpence; the plants having been purchased, the ground prepared, and the trees planted, and all other expenses paid, with the produce of the trees cut down to make room for the walk and the groups. This you should, in some degree, point out to gentlemen who wish to introduce such an important feature as an arboretum in their country seats. At nine places out of ten, throughout the country, an arboretum might be accomplished on this plan; and I scarcely know a country seat where half the trees round the house do not require cutting down.

"In recommending arboretums to those who have got but a limited extent of ground, you should advise them not to plant varieties. We intend doing so, because our space is unlimited: but, if this practice were to become general, the nurserymen would furnish us with catalogues of 20,000 species and varieties, which would put a damp to arboretums at once, from the impossibility both of purchasing the plants, and of finding room for them: and besides, in a few years, the species and varieties would be so confounded, that they would, in many cases, not be distinguishable from each other. I shall keep a young man constantly examining the trees and shrubs in our arboretum, till I have removed everything from it that is not perfectly distinct, and rendered it in every respect as perfect as it can be made."

The next great works he was employed upon were the Waterworks, the Emperor Fountain of which tosses its waters to the astonishing height of 267 feet. This, and all his subsequent conceptions are among "the most surprising in the world."

In 1840, he completed the conservatory at Chatsworth, then the largest ever constructed. It required forty miles in length of sash-bars, and to meet this enormous demand he invented a machine for cutting them, which, to use his own words, "performed the labour of twenty men for one year, and consequently saved in money £1200."

As a literary man he has appeared before the public advantageously, as the Editor of "The Magazine of Botany," begun in 1833, but now no longer published; as the author, in 1839, of a little volume, "On the Culture of the Dahlia;" as compiler of "Gardening for Cottagers," and the "Botanical Dictionary," the first of which was published about the year 1849, and the other about nine years previously.

We have now arrived at the most brilliant period of his life—the construction of the *first* Crystal Palace. Of its origin in 1850, we must republish the designer's own account.

"When the six eminent architects and engineers were selected as a committee to choose a design, Mr. Paxton says that he had no intention of offering one, for he took for granted that something worthy of the occasion and of the nation would be selected by them. When the time approached for the production of plans there was a discussion in the newspapers as to the design best adapted, and he must say that the first sketch he saw in a number of the *Builder*, did not inspire him with any exalted notions, or raise any very splendid expectations of the result. It was not until one morning when he was present with his friend, Mr. Ellis, at an early sitting of the House of Commons, that the idea of sending in a design occurred to him. A conversation took place between them with reference to the construction of the new House of Commons, in the course of which he (Mr. Paxton) observed that he was afraid they would also commit a great blunder in the building for the Industrial Exhibition; adding that he had a notion in his head, and that if he (Mr. Ellis) would accompany him to the Board of Trade, he would ascertain whether it was too late to send in a design. He asked the executive committee whether they were so far committed to the plans as to be precluded from receiving another. The reply was, 'Certainly not; the specifications will be out in a fortnight, but there is no reason why a clause should not be introduced allowing of the reception of another design.' He said, 'Well, if you will introduce such a clause I will go home, and in nine days hence I will bring you my plans all complete.' No doubt the executive thought him a very conceited fellow, and that what he said was nearer akin to romance than to common sense. Well, this was on Friday, the 11th of June. From London he went to the Menai Straits, to see the third tube of the Britannia Bridge placed, and on his return to Derby he had to attend to some business at the board-room, during which, however, his whole mind was devoted to his project; and whilst the business proceeded he sketched his design on a large piece of blotting-paper. He was sorry he had not the original with him, but the fact was, Mrs. Paxton had taken possession of it, and if they were at all anxious to see it, the only possible way of gratifying their desires was by sending for her to the meeting. Having sketched his design on blotting paper, he sat up all night until he had worked it out to his own satisfaction; and by the aid of his friend, Mr. Barlow, on the 15th, he was enabled to complete the whole of the plans by the Saturday following, on which day he left Rowsley for London. On arriving at the Derby station he met Mr. R. Stephenson, a member of the building committee, who was also on his way to the metropolis. Mr. Stephenson minutely examined the plans, and became thoroughly engrossed with them, until at length he exclaimed that the design was just the thing, and he only wished it had been submitted to the committee in time. Mr. Stephenson, however, laid the plans before the committee, and at first the idea was rather pooh-poohed; but his plans gradually grew in favour, and by publishing the design in the *Illustrated News*, and showing the advantage of such an erection over one composed of fifteen millions of bricks and other materials, which would have to be removed at a great loss, the committee did in the end reject the abortion of a child of their own, and unanimously recommended his bantling."

We have but little more to add, for having achieved one, the construction of the second Crystal Palace was comparatively easy. He was justly honoured with knighthood in 1851, and the words accompanying the Queen's smiling greeting in 1854, might have been those used by another monarch to another man of many victories—"If you go on at this rate we shall have to invent marks of distinction for you."

While the Sydenham Crystal Palace was still in progress the nation had drifted into the Crimean war, and an army was transported to the shores of the Black Sea, but without any of those means of transport and equipment which have been properly called the legs of an army. When the deficiencies of our position were read in the ghastly tales of famine and pestilence that assailed our troops, the fertile genius of Sir Joseph Paxton, was called into play once more. The navvies that were employed in the erection of the Crystal Palace were a band of stout, active, hardy fellows, not devoid of a certain rough discipline, and whose courage had more than once been proved during the erection of the building, by confronting terrors as real as any they were likely to meet with while joining an army in the field. He suggested

Yours truly
Joseph Paxton.

to the Government that a body to be called the Army Works Corps should be formed out of these stalwart sons of toil; and the suggestion was at once adopted at the War Office. It is due to them to say that the superior condition of our army at the close of the war was in a great measure due to the assistance rendered by the body raised on the suggestion and from among the labourers employed by Sir Joseph Paxton.

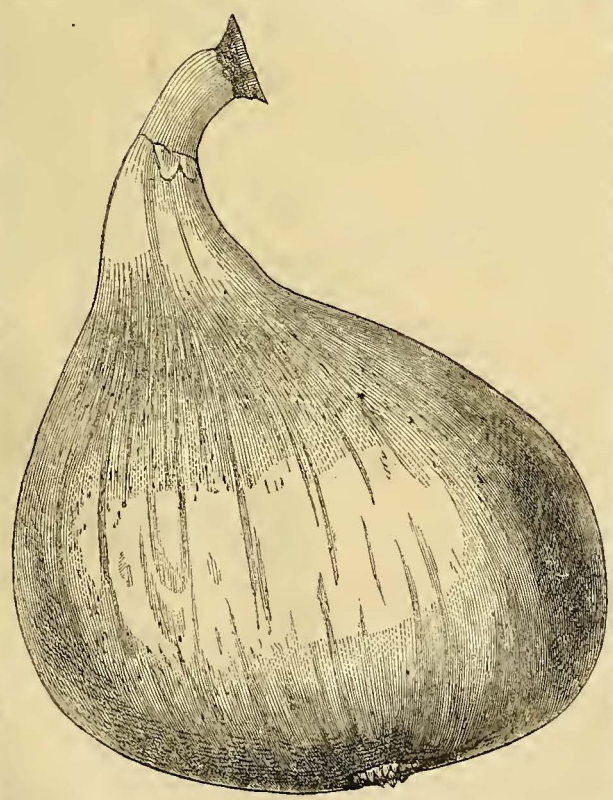
In 1854 a seat for Coventry had become vacant. Sir Joseph was then in the height of his fame, and it was almost a matter of course that a man in his position should enter the House of Commons. He offered himself to the electors on extreme liberal principles, and was elected. He has held the seat undisturbed, but continued ill-health induced him to inform his constituents that at the next election he should not request the renewal of their suffrages.

He remained at his residence of Rockhills, next the Crystal Palace, but though his declining strength had for a long time inspired serious alarm among his friends, latterly it had somewhat improved. On the occasion of the recent flower show he entered the Crystal Palace for the last time, and before the public were admitted endeavoured, as was his wont, to review the whole display; but he was not able to accomplish a journey round all the stands. During the past week or two his state became gradually more precarious, and at eight o'clock of the morning of the 8th inst., he expired.

Sir Joseph followed the profession of an architect and civil engineer from the time when he constructed the great glass building in Hyde Park; but he did not relinquish his position at Chatsworth. Sir Joseph Paxton was happy in having won the esteem and friendship of many of the greatest and best in the land, who were glad to assemble in a brilliant circle as his guests at Rockhills. But he was happiest in the constant esteem and love, often and truly expressed, of the late Duke of Devonshire. Some time before his own death his patron handed to Sir Joseph Paxton a life policy for £20,000, upon which he charged himself to pay the premiums for Sir Joseph's benefit. This princely gift was the last of many others; but on the accession of the present Duke Sir Joseph had still a firm friend in the Lord of Chatsworth. Sir Joseph was a Fellow of the Horticultural Society, 1826; of the Linnæan, 1833; and in 1844 he was made, by the Emperor of Russia, a Knight of the Order of St. Vladimir.

## CASTLE KENNEDY FIG.

The Castle Kennedy Fig, of which the annexed figure is a faithful representation, has existed at Castle Kennedy, in Scotland, for upwards of a century, but how it came there, or what was its origin, are matters on which we have no reliable information. It is supposed that at some early period a former proprietor received it from the continent, but whether this was so, or whether it is a chance seedling, is not known, but there can be no doubt that it is quite distinct from any other variety in cultivation in this country. The great distinguishing feature of this Fig in its remarkable earliness. It ripens more than a fortnight before the White Marseilles, which is the only early variety worth cultivating, and as a forcing Fig it also surpasses every other for the rapidity with which it can be brought forward. The fruit from which our present engraving was taken, and which was forwarded to us by Mr. Fowler, the skilful gardener to the Earl of Stair, at Castle Kennedy, was taken from a tree which was begun to be forced on the 20th of February last, and the fruit was ready for use in May.



The fruit is of the largest size, turbinate or somewhat obovate. The skin is of a pale dingy brown on the half nearest the eye, and of a greenish yellow on the half towards the stalk, and the brown part is mottled with ashy grey specks. The flesh when fully ripe is of a dull opaline colour with the slightest tinge of red towards the eye, very melting, and of good flavour. Mr. Fowler says:—

"The Castle Kennedy Fig, when grown alongside the White Marseilles, planted out and treated in every respect in the same manner, is about a fortnight earlier than the latter, fully three weeks earlier than the Brown Turkey, and more than a month earlier than the Brunswick.

"The importance of this will be apparent to those interested in the cultivation of Figs, not only for early forcing, but also for out-door cultivation, as it may be expected to ripen in cold and unfavourable localities where Figs have not heretofore been grown. In our wet and cloudy climate (Wigtonshire), it has ripened out of doors on a standard, and always ripens on a wall having a south-east aspect, early in August.

"When within a few days of being ripe, a clear honey-looking substance, of exquisite flavour, commences to drop from the eye of each fruit. When quite ripe this substance becomes somewhat viscid, hanging like an elongated dew-drop, from half an inch to three-quarters in length, clear as crystal, giving a very remarkable appearance to the fruit.

"At page 428 of The Journal of Horticulture, Dr. Hogg, in addressing the Scientific Meeting of the Royal Horticultural Society, held on the 30th ult., in speaking of the Castle Kennedy Fig, says:—'The fruit, as would be seen, was very fine, and, instead of requiring four months to ripen when forced, it would do so in two, which was a very great recommendation.' Owing to my cramp writing, or some other cause, an error has arisen which I am anxious to have rectified—it should read *three months* instead of 'two months.'

"The fruit of the Castle Kennedy Fig which was before the meeting was commenced to be forced on the 20th February. The first ripe Fig was gathered on the 27th April; the first dish on the 23rd May: thus proving that when forced early it can be ripened in about three months. The Figs here are planted out in a border in the inside of the house, and all treated in every respect in the same manner."

Taking it altogether—its size, earliness, and fine hand-

synonymous continental word, and it certainly is produced by manipulation. Both shoots will be allowed to extend to 15 inches, and be stopped back to about 12 inches. At Montreuil about 14 inches is the general rule.

Many pruners abjure summer stopping altogether, which is a great error, and the cause of overgrowth and weakness in the tree. The winter shortening is immense and needless, because it is well known that the buds of the lower portion of each shoot can be readily distinguished in June, and a good guess then made as to their quality. If the lower buds be then prominent, and well established, what need can there be for any superfluous length of shoot beyond them? But, let us suppose A and B to make a good summer growth, and to have been stopped at 12 inches, as seen in *fig.* 11, and then to have made an additional second growth, which is only of use so far as it occupies the superabundant sap. During the season they will have been secured to the wall, avoiding enclosing any leaves, at the proper angle, and if weak it is proper to raise them somewhat more. At the winter pruning, when the leaves have dropped, they will look much like *fig.* 11. E Represents the original shoot, now called a spur.

It will now be proper to consider which shoot should be preserved long for fruit, and which cut back for a replacing-shoot. In *fig.* 12 it is supposed that B has been found, by reason of its groups of triple buds, to be the best, and therefore it is cut down to above the second group of triple buds. Many pruners, however, would have left it half as long again. Some retain thereby space for a couple of fruit. This may be done when there is generally little fruit on the tree, or if the tree have few shoots. A Is cut down to two good wood-buds for a succession; the long shoot B is attached closely to the wall at rather an acute angle with the branch. The spur E continues to preserve its original form. These simple operations complete the year's work; great care having been taken, by syringing copiously, &c., the leaves during the summer, so as to keep down insects and favour growth. Practical Peach-pruners, such as Mr. Radclyffe, continually tell us this.

At the fourth summer, in *fig.* 13 we see that the original shoots A and B are still the basis of the work in hand. A From its two wood-buds puts forth two summer shoots C and D, which are likewise stopped at 12 inches, and make a second growth. B Now bears a fruit at F, and the wood-bud accompanying the fruit extends a little, and is pinched in at three or four leaves. The terminal group sends forth another shoot from its central bud, and this is also pinched to three leaves. These two small shoots are amply sufficient to attract sap to the fruit below them, and this is their use. It will be observed that the fruit grows in this case on the lowest triple group, which is always the best to select. Should the shoot B have been laid in at much greater length than here shown, and disbudding the intervening buds be practised (as so many do, some leaving only the bud accompanying the fruit, and another at the base to succeed), then it can only be considered an unnatural and useless custom. Moreover, some of the very best practical pruners agree that it is not proper to depend on the same shoot to bear fruit and to produce a replacing-shoot for the next season. It cannot be depended on, and requires far more attention in bending the shoot at just the proper time than the present plan. If this bending down of the shoot is omitted it will be blind the following year. The new shoots C and D are treated as before described, and if neatly secured to the wall will not present any confused or crowded appearance.

At the fourth winter pruning either of the shoots C and D are selected according to their character. Supposing D, the lower shoot, to be selected as the fruit-bearer, it is cut above the second or third group of buds as before; C, the upper shoot, then becomes that destined to produce the two new succession-shoots, and is accordingly cut back to two wood-buds. The upper portion of the original spur E, together with the whole of the shoot B, are now cut away as smoothly as possible, leaving the whole as it appears in *fig.* 14. By this time one or more buds will have appeared at the base of original spur E, and these if developed will form the basis of future work. Should several appear, one at least should be closely pinched in, so as to form a cluster-spur, and thereby increase the chance of fruit.

There are several other ways of managing the shoots, but none better than this one, nor in reality more simple. Some manage to work with alternate shoots. Others dispense even with this, and are content with single ones. Much overlying of shoot and branch and considerable winter amputations are the consequences. Long pruning on the whole wastes the vitality of the tree by producing much needless wood. All recent experience points to a modification of this system, which shall form my next subject.—T. Bréhaut, *Richmond House, Guernsey.*

## THE LATE DUKE OF DEVONSHIRE AND SIR JOSEPH PAXTON.

About twenty years ago, by the direction of the late Duke of Devonshire, I copied the following from the original in his Grace's handwriting:—

"Joseph Paxton was born the 3rd of August, 1803. I made his acquaintance at the Horticultural Society's Garden at Chiswick, where he was placed in 1823. He was chiefly employed then in training the creepers and newly introduced plants on the walls there, which first excited my attention; and being in want of a gardener at Chatsworth, I asked Mr. Sabine, who was then at the head of the establishment, whether he thought that young man would do? He said, 'Young and untried,' but spoke so favourably that I had no doubt.

"The young man had made a large lake in 1822 at Sir Gregory Page Turner's place near Woburn. He came to Chatsworth in 1826. You shall have it in his own words: 'I left London by the Comet coach for Chesterfield, and arrived at Chatsworth at half-past four o'clock in the morning of the 9th of May, 1826. As no person was to be seen at that early hour I got over the greenhouse gate by the old covered way, explored the pleasure-grounds, and looked round the outside of the house. I then went down to the kitchen garden, scaled the outside wall, and saw the whole of the place, set the men to work there at six o'clock; then returned to Chatsworth, and got Thomas Weldon to play me the waterworks, and afterwards went to breakfast with poor dear Mrs. Gregory and her niece: the latter fell in love with me, and I with her, and thus completed my first morning's work, at Chatsworth, before nine o'clock.'

"He married Miss Sarah Bown in 1827. In a very short time a great change appeared in pleasure-ground and garden: vegetables of which there had been none, fruit in perfection, and flowers. Twelve men with brooms in their hands on the lawn began to sweep, the labourers to work with activity. The kitchen garden was so low and exposed to floods from the river, that I supposed the first wish of the new gardener would be to remove it to some other place, but he made it answer. In 1829 the management of the woods was entrusted to him, and gradually they were rescued from a prospect of destruction. Not till 1832 did I take to caring for my plants in earnest. The old greenhouse was converted into a stove, the greenhouse at the gardens was built, the Arboretum was invented and formed. Then started up Orchidaceæ, and three successive houses were built to receive the increasing numbers.

"In 1835 the intelligent gardener John Gibson was despatched to India to obtain the Amherstia nobilis and other treasures of the East. The colossal new Conservatory was invented and begun in 1836; the following year Baron Ludwig was so charmed with its conception, that he stripped his garden at the Cape of the rarest produce of Africa. Paxton had now been employed in the superintendence and formation of my roads: he made one tour with me to the West of England, and in 1838 contrived to accompany me for an entire year abroad, in which time, having gone through Switzerland and Italy, he trod in Greece, Turkey, Asia Minor, Malta, Spain, and Portugal. In absence he managed that no progress should be checked at home. A great calamity ruined the expedition he had set on foot to California; the unfortunate Wallace and Banks, young gardeners from Chatsworth, having been drowned in Columbia river. He went with me in 1840 to Lismore, and in that year the Conservatory was finished. The village of Edensor was new-modelled and rebuilt between 1839 and 1841, and the crowning works have been the fountains and the rock-garden."

After I had copied what precedes, I inquired of the Duke if he knew the amount of wages Paxton was receiving from the Horticultural Society in 1823? the answer was, "Only 18*s.* a-week, as I was informed by Mr. Sabine." As I knew that the Duke of Devonshire (by whom I had been most kindly aided for the last eighteen years) would not be offended by the question, I asked what wages he had himself given the "young and untried" gardener in the first instance? and his reply was, "I think 25*s.* a-week, and a cottage." Of course, his Grace afterwards rapidly advanced Paxton's wages; and eight or ten

years subsequently, the young labourer of 18s. a-week, and the new gardener of 25s. a-week, was often seen dining at the Duke's table.—(J. Payne Collier, in *Notes and Queries*.)

## NEW EARLY PEAS.

On the 7th of February I sowed the following varieties:—Dickson's First and Best Early, Sutton's Ringleader, Dillistone's Early Prolific, Sangster's No. 1, Daniel O'Rourke, and Maclean's Princess Royal, and on the following day Dickson's Early Favourite, Wonderful, and Maclean's Dwarf Prolific. In consequence of a long period of severe weather which set in just after they were sown, it was at least seven weeks before any of them appeared above ground, and then in the following order:—1st, Sutton's Ringleader, and Carter's First Crop; 2nd, Dickson's First and Best, and Dillistone's Early Prolific; 3rd, Daniel O'Rourke; 4th, Sangster's No. 1; the other three kinds coming through together a little after the last named. The time occupied in the Peas appearing above ground was from ten to twelve days. On the 5th of May, I noted that Carter's First Crop, and Sutton's Ringleader, were in full bloom; Dickson's First and Best Early was four days later; while Sangster's No. 1, and Daniel O'Rourke, bloomed together about two days later than Dickson's. Dillistone's Early, the seed of which was had direct from Mr. Dillistone, of Sible Hedingham, started off into a strong growth just as it was coming into bloom, a very heavy rain having fallen a few days previously. It reached the height of between 5 and 6 feet, came into bearing the last of all the early kinds, and produced a good crop, but the pods were rather small, and as I grew it, did not seem to present any special claims to favour.

On the 1st of June, I gathered a good dish of Peas, the majority from Carter's First Crop, and Sutton's Ringleader, and some from Dickson's First and Best Early; from the last, two days later, I was enabled to gather an abundant dish. Some time after the Peas had been sown, I was informed by Messrs. F. and A. Dickson & Sons, of Chester, that the seed of their First and Best Early Pea, was of the crop of 1863; in fact, that all they sent out, in the past spring, was of that harvest. I am, therefore, of opinion, that when new seed of the First and Best Pea can be sown against Carter's and Sutton's, it will be found quite as early, and a much better cropper, as it really is. I fully believe that the First Crop, and Ringleader, are identical in every respect, and this is not only my own opinion, but also that of all others who saw them, and it was noticeable that whereas Dickson's Pea was entirely free from "rogues," or "stragglers," there was a number of them amongst the other two varieties. The three were grown in a good deep loam, well manured last year for Onions, the average height being from 2 to 2½ feet. Sangster's No. 1, and Daniel O'Rourke, were ready for gathering about a week later, and their good qualities are too well known to need comment here.

In succession to these came Dickson's Favourite, Princess Royal, Wonderful, and Maclean's Dwarf Prolific, all were in bearing at the same time. Dickson's Favourite is a well-known variety, an abundant bearer, with long well-filled pods. It will grow from 5 to 6 feet high. Princess Royal is a large, white, round, Marrow Pea, growing about 3½ feet in height, and an abundant cropper, having large pods filled with fine Peas of good flavour. Wonderful is similar to Princess Royal, excepting that it is a white wrinkled Marrow, and scarcely so robust a grower. Both of these are first-class Peas, and they deserve to rank A 1. in the seed catalogues. Maclean's Dwarf Prolific grows about 2½ feet high, is an abundant cropper, rather smaller in the pod than the other two, and not quite so hardy. I may mention, that I grew Maclean's Advancer last year, and that I have this season seen it growing in the garden of Sir W. Heathcote, Bart., M.P., at Hursley, Hants, and while I admit its claims as a very early wrinkled Marrow, yet I find, that in southern localities at least, it grows so dwarf, and crops so sparely, that I do not think it can long hold its own.

I am also growing Veitch's Perfection, Yorkshire Hero, Hairs' Dwarf Mammoth, Prince of Wales, and Lord Raglan, but they are not yet sufficiently advanced to make notes of at present. I know from last year's trial that they are all excellent varieties.

I should like to recommend, as best dwarf Peas for succession, Dickson's "First and Best Early," Sangster's No. 1, Princess Royal, Wonderful, Veitch's Perfection, and Lord Raglan.—Alex. Dean, *Maybush, Shirley, Southampton.*

## WORK FOR THE WEEK.

### KITCHEN GARDEN.

The weather during the past few days has in many parts of the country been particularly favonrable for planting out the autumn and winter crops, which may have been delayed in consequence of the previous dry weather. *Beans*, some Mazagans may yet be put in, which will produce late in the season if the weather prove favourable. *Broccoli*, Cape and Grange's may now be planted where the early Peas have been removed; the main crops of the other sorts should be got in as early as possible. *Cabbage*, sow a little more seed, if the sowing we recommended last month has failed. *Chervil*, another sowing to be now made for succession. *Cucumbers*, put in a few cuttings or sow a little seed, so as to have a few plants to plant out for a succession till Christmas. Continue to pay every attention to those in frames; they must have a liberal supply of water twice a-week, and should be sprinkled every afternoon. *Endive*, continue to plant-out a few about once a-fortnight, to keep up a succession; another sowing should be made. *Dwarf Kidney Beans*, the last principal sowing should now be made; earth-up the advancing crops. *Leeks*, those sown in drills should be thinned to a foot apart in rich ground, the thinnings will do to plant out. *Parsley*, make a sowing, so as to have strong plants by the winter. *Peas*, earth-up and stick the advancing crops; a few more may be sown, which will come into bearing if the autumn is favourable. *Radishes*, make a sowing of the various sorts; the Turnip-rooted, however, are generally preferred at this season. *Vegetable Marrow*, these plants will require a liberal supply of water; stop the main shoots to cause them to throw out laterals. Immediately a crop is done with either remove it to the char-heap or dig it in, in either case sprinkle the ground with lime to destroy slugs.

### FRUIT GARDEN.

Grape Vines against walls to have the young shoots trained from the lower part of the wall for bearing next year. See that Peaches, Nectarines, and Apricots are nailed, if not already done, as the wind is sometimes very strong about midsummer and makes sad havoc with the shoots. Currants and Gooseberries require all watery useless shoots to be thinned out. It is a good plan for keeping Red Currants till the latest period for tarts, &c., to select some of the best bushes on a dry day, and thin all the shoots from the fruit; drive a strong stake in the middle of the bush, and tie all the branches to it, then wrap one or two garden mats around it.

### FLOWER GARDEN.

Remove suckers from Roses, and clear the stems of wild shoots. Strong shoots of Chrysanthemums may now be layered in pots to produce dwarf compact bushes. Those in pots may soon receive their final shift. Ranunculuses may be taken up as soon as the foliage has turned yellow; for should wet weather continue they might emit fresh fibres, and if taken up then they are likely to be worthless. Plants growing in baskets or vases should now have a final stirring at the roots before the surface is entirely covered with foliage, likewise put on a layer of moss to prevent excessive evaporation, and thus save some labour in watering, which they would otherwise frequently require, as they are generally elevated above the surrounding surface, and therefore more exposed to the sun's rays. Bear in mind that Fuchsias in vases should be attended to daily as regards watering, it is inattention to this that causes the bloom to drop, and in the course of time renders the plant unsightly. Remove all decayed flowers and seed-vessels from American plants. Now is a good time for layering Rhododendrons, Belgian Azaleas, &c., just as they are coming into full growth. Shrubs grown to embellish Italian and geometric flower gardens, terraces, &c., should now be cut into the figure they are to assume; in many cases wires will be necessary to keep the branches in their proper places at first, when afterwards the knife and shears will suffice to keep them in proper form. Portugal Laurels, Cypresses, Arbor Vitæ, Yews, Bays, and tree Box are the plants most commonly used for this purpose, and when cut into architectural figures are good accompaniments of the above style of gardening. They should, however be clipped in two or three times during the season to preserve correctly the desired outline.

### GREENHOUSE AND CONSERVATORY.

While out-door flowers may soon be expected in abundance, nothing should be brought here but what is well grown and bloomed, nor should any plants be allowed to remain that are at all shabby, for it is a waste of means, and certainly betrays

**PAWSON Sarah.**

Effects under £18,000.

5 April. The Will of Sarah Pawson late of Farnley in the Parish of Leeds in the County of **York** Spinster deceased who died 21 January 1865 at Farnley aforesaid was proved at **Wakefield** by the oath of Hannah Pawson of Farnley aforesaid Spinster the Sister the surviving Executrix.

**PAXTON George Augustus Esq.**

Effect under £18,000.

7 February. The Will with two Codicils of George Augustus Paxton late of West Cholderton near Marlborough in the County of **Wilts** Esquire deceased who died 3 January 1865 at Pisa in Italy was proved at the **Principal Registry** by the oath of Annie Hessey Anderson of 123 Lansdowne-place Brighton in the County of Sussex Widow the Sister one of the Executors.

**PAXTON Sir Joseph** Knight.

Effects under £180,000.

4 September. The Will with a Codicil of Sir Joseph Paxton late of Rockhill in the County of **Kent** and of Chatsworth in the County of **Derby** Knight deceased who died 8 June 1865 at Rockhill aforesaid was proved at the **Principal Registry** by the oaths of the Reverend Edward Ridgeway of Mothell in the County of Waterford in Ireland Clerk George Allcard of South Bank Bickley in the County of Kent aforesaid Esquire and Charles Markham of Brimington Hall near Chesterfield in the County of Derby aforesaid Esquire three of the Executors.

**PAXTON Sophia Matilda.**

Effects under £14,000.

20 November. The Will with a Codicil of Sophia Matilda Paxton formerly of New-place Alresford in the County of Southampton but late of Castlebar Ealing in the County of **Middlesex** Spinster deceased who died 18 October 1865 at Castlebar aforesaid was proved at the **Principal Registry** by the oaths of Archibald Frederic Paxton of West Cholderton in the County of Wilts Esquire and Henry Paxton of West Dean near Chichester in the County of Sussex Esquire the Brothers the Executors.

**PAYN James.**

Effects under £100.

20 July. The Will of James Payn late of Saltwood in the County of **Kent** Grocer deceased who died 12 June 1865 at Saltwood aforesaid was proved at **Canterbury** by the oaths of Robert Thompson of Saltwood aforesaid Land Agent and John Payn of Saltwood aforesaid Grazier the Brother the Executors.

# THE GARDENS AT BERECHURCH HALL, NEAR COLCHESTER.

## Interview with Mr. George S. Peach.

NO better example than the gardens at Berechurch Hall could be given of the progress which, by dint of skill, energy, and perseverance, can be accomplished in a few years. Up to the time the fine estate of 4,000 acres was purchased by Mr. T. Hetherington, a decade ago, the house had been used as a hunting-box, but under his auspices it was converted into a noble modern mansion, which it was determined to embellish with suitable pleasure grounds. Mrs. Hetherington not only takes a great interest in gardening, but has a considerable knowledge of horticulture, and it was under her directions that Mr. George Peach, who has been head gardener since the change of ownership took place, acted when he undertook the pioneer work which has been carried to such a successful conclusion. For the gardens at Berechurch, as I saw them on the occasion of my visit in June, are so admirably planned, so adroitly arranged, and so tastefully equipped, that I should not have been surprised if I had been told that they were laid out a quarter of a century ago by the most eminent of professional designers. As I surveyed the south front from one of the pergolas, it was almost impossible to grasp the fact that the site of the brilliant scene before me was ordinary meadow land when Mr. Peach began to set up pergolas and plant shrubs. Even the extreme flatness of the land has been relieved, and the general impression created is most pleasing.

### The Decoration of a Great Pergola.

"Did you make this great pergola at the start?" I asked.

"No; it was only completed three years ago. Of course, the making of the gardens, as you see them to-day, has been done by degrees, and although a great deal has been effected, there are still further additions in contemplation."

"Can you give me the measurements of the pergola?"

"It is close upon three hundred yards round; the distance between each arch is ten feet, and the width of the gravel walk is eight feet. The Roses on the arches, as you will notice, are mixed with other creepers. The object in view is not so much to get a mass of flowers all at once, as to have a certain quantity of blooms from April to October, at any rate. The yellow Jasminum flowers in winter; Laburnums are very early, and particularly useful for trailing over the tops of the arches."

"What varieties of Clematis do you use?"

"One of the best creepers is C. montana, but we have also Jackmanni and Jackmanni superba and alba. The other creepers, in addition to Roses, are the Japanese Honeysuckle, white Jasminums, and Wistaria sinensis."

"And the Roses?"

"The varieties which we find do best on the pergolas and arches are Crimson Rambler, Dorothy Perkins, Blush Rambler, Thalia, Lady Gay, Hiawatha, Celine Forestier, Longworth Rambler, Reve d'Or, Paul's Carmine Pillar, Dundee Rambler, and Bouquet d'Or."

"They have made wonderful growth in three years."

"Yes; but the soil, which is light sand on gravel, only suits certain varieties well. We have to feed the Hybrid Perpetuals and Hybrid Teas heavily."

"Do you prune freely?"

"No; we only trim them up at this time of the year to keep them in shape. But they want constantly looking after to prevent them from striking out in the walk."

"You have some fine clumps of Rhododendrons in the vicinity?"

Mr. George Peach.

"The idea is to make a little colour, and we edge them with Azalea mollis in order to get a bright border. The Rhododendrons include some of the best named varieties. We make up the beds with peat and leaf-soil—the peat is obtained locally."

"When did you plant the flowering shrubs which form the boundary to the park?"

"Only three years ago. Speaking of the boundary, the sunk fence which divides the park from the gardens is topped with a Laurel hedge, three feet high, over the entire length, with openings and steps down to the park in several places."

### Flowers for Tubs.

"The effect of the great pergola is heightened by the numerous tubs dotted round the sides of the croquet lawns, and by the flower beds. How do you chiefly fill the tubs?"

"With Hydrangeas, Geraniums, Fuchsias, and Salvias. The last are the new scarlet variety Zurich, which is particularly good for the purpose. This year I am trying some old plants mixed with Geraniums Mrs. Patrick Campbell, and Plumbago capensis. There are two beds of Geranium Madame Crousse, used both as standards and for groundwork. I think that this is one of the most useful and brilliant of varieties. On each side of these is an oval bed of Rhododendrons; and on the right is the Rosery."

### The Varieties in the Rosery.

"When did you plant the Rosery?"

"Two years ago. There is a different variety in each bed, and the strong growers are doing well. Some varieties do not pay for planting. Care is taken to avoid having plants of different size, a point not always sufficiently considered, and, of course, we like to secure a mass of colour."

"What varieties do you find most flourishing?"

"Caroline Testout, with which a large bed is filled; Captain Hayward, Dupuy Jamain, Frau Karl Druschki, Victor Hugo, Liberty, Madame Abel Chatenay, Gruss an Teplitz, Killarney, Corallina, Maman Cochet, and Marie van Houtte. Round the pagoda, in the centre, are six beds of standards."

"And on the handsome pagoda itself?"

"Rambler Roses, mixed with Clematis Jackmanni. The vase is decorated with Geraniums Mrs. Patrick Campbell, which yield fine trusses of flower.

"The croquet lawns," continued Mr. Peach, "are divided by a gravel path twelve feet wide, and the vase in the centre is partly covered by Ampelopsis Veitchii. Here are beds of Geraniums Mrs. Patrick Campbell, which in August are a mass of scarlet. We do not always use Mrs. Patrick Campbell, but the effect of the arrangement was so good last year that we are repeating it this."

"How were these beds filled in spring?"

"The principal colours were red, white, and yellow. With a groundwork of Myosotis and Wallflowers (yellow and dark red), we combined Tulips at intervals through the beds, the varieties being Yellow Prince, Artex (red), and La Reine (white). All bulbs do well on this soil. The two long beds close to these have Golden Privet in the centre, and Veronicas outside."

### The Flowering Shrubs.

Passing a venerable shrubbery, which Mr. Peach says has taken a new lease of life since the old ditch, which originally formed the boundary to the park, was filled in, we bestowed our attentions on the bedding in another part of the lawn.

"How are they planted now?" I enquired.

"One large bed has in the centre the American Aloe, the groundwork being Marguerites, with Plumbago capensis and Ivy-leaf Geraniums Charles Turner as standards. The four big round beds consist of Calceolarias Golden Gem and Coleus Verschaffeldtii; the four smaller of Ivy-leaved Geranium Madame Crousse. In spring these beds were planted like those on the other side, except that we also made free use of Tulips, Keizer's Kroon. There are several raised Rose beds, with varieties as

near as possible alike in size and habit of growth; those of standards have a groundwork of mixed Violas and Pansies."

"The south front of the hall seems to be nearly covered by Ampelopsis Veitchii?"

"It is red at the end of October; the colouring is very striking. There is only one plant, and it was put there when the original hall was built, nearly thirty years ago. The wall below the terrace, which has an elevation of nine steps, is covered with creepers, including Roses, Honeysuckle, and Clematis."

"We ought to indicate some of the flowering shrubs in this border and in other parts of the grounds."

"In addition to the two or three I have mentioned, Lilacs, Laurustinus, Weigelas, Viburnums, Spiræas, Brooms (white, yellow, and orange), Ribes, Prunus, Magnolias, Deutzias, Cydonias, Cotoneasters, Berberis in variety, and standards of double-flowering Peaches, Cherries, and Almonds, find a congenial home here."

"Then you have some exceptionally thriving specimens of Hollies."

"All the Hollies do well. Also Aucubas, Junipers, Retinosporas, Thujas, Acers, and Box. In the border below the shrubs there are, for summer flowering, chiefly Delphiniums, Phloxes, Michaelmas Daisies, Helianthemums, Arabis, and Alyssums. In the spring we fill with bulbs."

**How the Conservatory is Furnished.**

"You do not have many flowers in the conservatory on the terrace?"

"The flowers are used almost entirely to decorate the rooms and tables. We only have a few blooms in the conservatory now and then, such as large-flowering Chrysanthemums. Palms, Bamboos, Aspidistras, and Ferns are the ordinary furniture."

"How far are you from the sea?" I asked, as we went outside, and the air was particularly fresh.

"About eight miles, without any intervening obstacles. Having referred to the shrubs, perhaps you would like to add a note about the trees. By the way, of Conifers, Cupressus macrocarpa, of which there are several specimens on the croquet lawn, grow very rapidly."

"What is the age of the mighty Beech we are approaching?"

"At least one hundred and fifty years. It is naturally bound together with its own branches. Near it is a good specimen of Sycamore, and elsewhere you will see Ash and Limes of considerable size."

The north side of the hall, and the carriage drive, are quite plain, but near the very ancient church are some more fine trees. This part, however, has not been cultivated, and is, for the present at any rate, left in its natural beauty, with several charming openings.

"Here," said Mr. Peach, "we planted clumps of Abies Douglasii to break the wind. Curiously enough, though it will not grow at all as a specimen, planted in clumps it goes ahead like weeds; but we will now inspect the other part of the flower garden, which contains the plant houses."

**Filling the Houses.**

"How do you furnish your elegant little range of houses?"

"One is a Fernery, with Begonias Corallina planted out in the bed. They are in flower for four or five months. We use the blooms occasionally for the dinner table, but the main object is to make a pretty show in the Fernery. I do nothing to the Begonias, except feed them with a little artificial manure. The Stephanotis on the roof is used for buttonholes, and on the stage opposite there are many varieties of useful Ferns."

"You have a captivating show of Gloxinias in the other house?"

"They are last year's seedlings, Veitch's erect-flowering, with stems of great length, and blooms of many shades of colour. We use them for the dinner-table, and they make a very fine show. As to cultivation, the only important point is that I pot them in cow manure. On the other side of the house are Achimenes, which flower all the summer, also in pots; and a collection of Coleus, with an edging of Panicum variegatum, which want a lot of heat, but does much to make the house look attractive. The Swainsonia is planted out, and at the end of the house there are scarlet Begonias in flower. We might now inspect the other houses, one of which is chiefly devoted to Coleus and other foliage plants. There are more foliage plants in the small stove, and a few Orchids, with two fine specimens of Ficus elastica. But we pay more attention to the outside than to the houses, and, if I add that we have a number of Nephrolepis Ferns, and a good specimen of Bougainvillea Sanderii, we may pass on to the kitchen garden."

"But there are the fruit houses?"

"They are not on a large scale. One was a Muscat house until three years ago, and the other, a cooler house, is used for growing later Peaches. We keep up the season from the first week in July to the end of October, and the varieties we grow inside and outside are Peaches Waterloo, Royal George, Goshawk, Dr. Hogg, Violette Hative, and Barrington. The Nectarines are Early Rivers, Lord Napier, Elruge, Pine-apple, and Dryden. In the only remaining Vinery, we grow Black Hamburgh, Buckland's Sweetwater, and Foster's Seedling."

BERECHURCH HALL, COLCHESTER.

**The Value of Pits.**

"What do you use your pits for?"

"Mainly Tomatoes, Melons, and Cucumbers. My experience is that all do better planted out in pits than grown in pots. The only variety of Tomato is the Hastings. The Melons are Frogmore Scarlet, Hero of Lockinge, Syon Perfection, and Eminence. The only Cucumber is Improved Telegraph."

"How large is your kitchen garden?"

"It is not much more than an acre, but I have a vegetable and fruit garden about a mile and a half from the hall, which was made nine years ago. The fruit trees are all standards, and the vegetables principally for winter use. The soil there is heavy, and that is why I selected the ground. Arches of Roses are a feature of the cross walks in the kitchen garden, and so are clumps of Sweet Peas."

**Sweet Peas and Dahlias.**

"Are they grown in separate colours?"

"Yes, but I have seven or eight clumps of some of the favourite varieties, and only one clump of others."

"What is your system of cultivation?"

"I sow early in January in pots, five or six seeds in a 'forty-eight' pot, in a warm house. As soon as the plants are through the soil, they are removed to a cool house or frame, gradually hardened as growth advances, and planted out the first week in April. Three pots are planted in a triangle, two feet apart, to form clumps of one colour only. The ground is prepared during the winter by digging holes three feet across and two feet deep. Well-rotted manure and bonemeal are worked into the bottom, and also into the soil as it is replaced."

"Do you go in strongly for Cactus Dahlias?"

"We plant them in the beds and shrubbery borders wherever we can find room for them singly. Planted in this way, they do not look stiff, and we derive every advantage from their colour. I prepare the ground for Dahlias in a similar manner to Sweet Peas."

"What about Chrysanthemums?"

"We have about six hundred, mostly early-flowering and singles. The Violets grown in quantity are Marie Louise and Lady Hume Campbell, in pits; the Czar and Princess of Wales outside."

**Hardy Fruit in Quantity.**

"The central walk of your kitchen garden forms quite a picture, with its Rose arches at intervals."

"On one side is the great herbaceous border, about twenty feet wide, and on the other is a narrower border, with Sweet Peas, Dahlias, and Asters alternating."

"You have a north wall well covered with Plums. What are the varieties?"

"Czar, Early Orleans, Golden Drop, Jefferson, Victoria, and Monarch. Morello Cherries do fairly well on the wall, but better as bushes, where they are less trouble. On the east wall, with the protection of a glass coping, sweet Cherries and Figs thrive."

"And bush fruit?"

"Gooseberries and Currants are as successfully grown on the walls as on bushes. We get White and Red Currants, on a north wall, as late as October. Four varieties of Raspberries are grown—Baumforth's Seedling, Superlative, Fillbasket, and Golden Queen."

"What about Strawberries?"

"We depend upon Royal Sovereign, but grow also President and Waterloo. A few are forced, and some are grown on a warm border; others on the cool soil in the outside garden. In order to prolong the season, we have four distinct batches."

**The Treatment of Peas and Beans.**

"Do you force any Potatoes?"

"Only Duke of York; but other early varieties are Early Puritan, Sutton's Harbinger, King Edward VII., Beauty of Hebron, and the Colleen. I only grow five varieties of Peas,

Gradus, Essex Wonder, Exhibition Marrow, Veitch's Maincrop, and Autocrat."

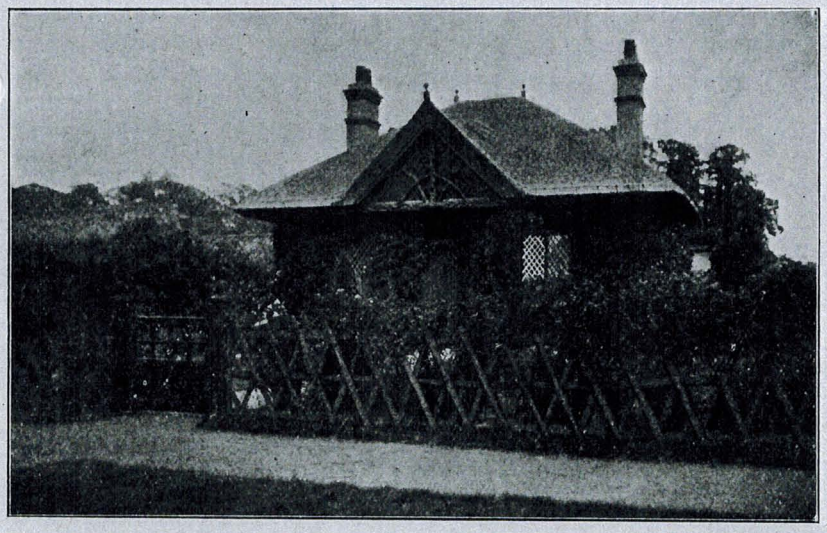
"Do you care to say anything about cultivation?"

"I depend on getting my earliest Peas by raising them in "forty-eight' pots in January. They are planted out the first week in April, in well-manured trenches, Gradus being as good as any for this purpose. Broad Beans are treated in a similar manner, only I use larger pots. They also seem to bear heavier crops than those sown in the open ground. The same may be said of Runner Beans, raised in pots and planted out; they well repay the extra trouble."

**How to Force Seakale.**

"You have apparently large quantities of Asparagus and Seakale."

"There are four beds of Asparagus, and I cut from early in May until the end of June. A considerable quantity of Seakale is forced. I find it most convenient to grow from thongs, which are prepared during the winter. The strongest only are selected. Trimmed to about six inches in length, they are laid in a cold frame till growth commences. They are then planted out in amply-trenched and well-manured ground,



Mr. Peach's Cottage.

fifteen inches apart. When the growths are far enough advanced to handle, all are cut away except the strongest one. We lift them in the autumn, and store them in sand in a cool shed. Small batches are put in the forcing-house each week from November to April."

**From North to East.**

"Before you practically made these gardens, Mr. Peach, where did you have charge?"

"I was only head gardener for four years before I came to Berechurch, and during that period I had the care of the gardens at Wavenden House, Woburn Sands. But my early experience of gardening was in the North of England. I began at Howick Hall, Northumberland, and at the end of four years I went to Lambton Castle, Durham, thence for two years to Brayton Hall, Cumberland, where I was responsible for indoor plants. From Brayton Hall I proceeded to Keir House, Dunblane, as foreman under Mr. Lunt, in those days the best of Chrysanthemum growers. We do not go in for showing, but I have been awarded five medals at Colchester by the National Chrysanthemum Society."

Alfred Wilcox.

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The subject of next week's interview, with Mr. B. C. C. Chambers, of Grayswood Hill, Haslemere, is respecting his famous collection of specimen trees and flowering shrubs.

## The Brunsvigia.

This is a genus of very showy bulbs from the Cape of Good Hope, which, on account of their large size, and the slow manner in which they increase, are rarely seen in cultivation, except in choice conservatory or greenhouse collections. They grow in the arid plains of South Africa, their bulbs often buried a foot beneath the surface, and during their blooming season they are entirely devoid of foliage. Under cultivation they are regarded by many as very capricious in the matter of forming flowers, often going years without blooming; but this is undoubtedly due to ignorance of their requirements. Their successful management requires to be divided into two periods, one of active growth, and one of complete rest.

**Cultural Requirements.**

Good-sized pots are required, and loam, mixed with leaf-mould and a little sand, suits as a potting compost. After leaf-growth starts, it should be stimulated by liberal watering, warmth, and—with established bulbs—applications of liquid manure. As the leaves fade—usually in May—gradually withhold water, and after they have disappeared, cease watering altogether, and subject the bulbs to a "roasting" process until the flower-bud shows, usually at the latter part of August or the beginning of September. A hot, dry heat of seventy degrees or more will so thoroughly ripen the bulb that, if of sufficient age and well established, it will invariably produce its magnificent umbel of gorgeous flowers. As soon as the bud shows, the soil should be watered until it is thoroughly moistened throughout, and should not be allowed to suffer for moisture during the period of inflorescence.

The leaves follow the flowers, and therefore regular watering must be maintained so long as their period of growth continues; and after the leaves cease growing, the soil must still be kept sufficiently moist to prevent them from dying off before the proper season for doing so.

B. Josephineæ was first flowered in cultivation in the gardens of Malmaison, and was named in honour of the Empress Josephine. Among the South African farmers, familiar with it in its wild state, it is known as the Candelabra-flower, owing to the whole inflorescence being suggestive of an elaborate chandelier. Sometimes there are as many as fifty or sixty flowers in the umbel, each borne on a stiff pedicel nine inches long, the flower itself being three inches long, and in shape and colour suggesting the Jacobean Lily (Sprekelia formosissima). The bulbs grow very large, and the leaves attain a length of two feet, with a breadth of five inches.

With B. multiflora, commonly known as B. gigantea, the flowers are less numerous and smaller; and though much brighter in colour are less effective, because they are greenish at the base. The foliage is peculiar, each leaf being about fifteen inches long, very broad, and rounded at the end, shaped much like a beaver's tail. Both species require the same treatment. Of the ten or more species known to botanic science, these two only are in cultivation.

Thomas Francis.

## A Neglected Race of Plants.

THE HOVEAS.

These are among the most beautiful of hard-wooded greenhouse plants, and being of vigorous growth and the easiest possible culture, it is surprising that they are not more generally cultivated. H. Celsii bears a profusion of exquisite Pea-shaped flowers of a bluish-purple colour. H. pungens is very similar, and has flowers of a most effective colour, but it is much more slender and delicate in growth.

Both can be grown in either loam or peat; but if the latter, of good fibrous quality, is at hand, it should be preferred, mixing plenty of sand with it, of course. The plants must be potted firmly, like all others of this class, and water must only be given when required—that is, when the soil becomes moderately dry, and the pot rings a little hollow when rapped. At the same time, H. Celsii requires a fairly liberal supply of moisture while in growth and bloom.

**Propagation.**

This fine plant may be increased by means of cuttings of the half-ripened shoots in the spring, in the usual way, or it may be raised from seed, if this can be obtained, the latter being, perhaps, the better plan. The seed should be sown in well-drained pans of fine peat, mixed with plenty of sand, covering it with about a quarter of an inch of soil, and pressing down firmly. Place the pan in an intermediate temperature, and keep the soil just moist, shading from all bright sun.

When the plants are well up and fit to handle, transfer them singly to small or "thumb" pots, using very sandy peat. Keep them moderately close and warm till established, syringing them frequently overhead, but not too heavily. Winter them in a temperature of forty-five degrees at night. In the spring, pinch out the points, to induce the formation of sideshoots. When they break into growth again, move them into 3-in. or 4-in. pots, and keep them growing on steadily in a genial temperature, with plenty of moisture, and not too much air.

In the spring move them on again into 6-in. pots, and grow them on in the usual way. They will bloom to some extent this season if allowed to do so, but if fine specimens are desired the buds should be picked off and the plants be grown on again, moving them into pots two or three inches larger in the spring.

The Hovea may also be grown without any stopping, letting the plants grow on straight from the cutting, when they assume a kind of standard form, and bloom very freely. It also makes an excellent climber or pillar plant in a cool greenhouse, and in this case they should be planted out in a well-drained bed of peaty or light, loamy soil.

Red-spider sometimes attacks the plants, but is easily got rid of by syringing.

An Old Hand.

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At the summer show of the People's Palace and East London Horticultural Society, there was on view a group of foliage plants lent by by the King.

GC, 1908

**CHARLES PENFORD.**—On the 2nd inst., at his residence, Mr. Charles Penford passed away, after a long illness. Deceased was best known to Chrysanthemum growers, exhibitors, and raisers. As a raiser of seedling Chrysanthemums he obtained gratifying success, and there are many of his excellent varieties still much appreciated. Such varieties as Mrs. Norman Davis, Sydney Penford, Leigh Park Wonder, and Joseph Stoney may be mentioned as some of his latest achievements, while there are numerous others of earlier origin which still hold their own on the exhibition board, among which may be named the beautiful Duchess of Sutherland, Beauty of Leigh, and Florence Penford. Mr. Penford was for many years a successful exhibitor, especially at the time the incurved varieties were more popularly esteemed than they are at present. For more than 30 years he held the position of head gardener at Leigh Park, Havant. Deceased was 74 years of age.

**PENFOLD** John Blake of 1 Lorne-terrace Brampton Cumberland painter died 23 March 1908 Probate **Carlisle** 28 September to Marianne Penfold widow and Thomasina Penfold spinster. Effects £1732 9s. 3d.

**PENFOLD** Kate of 43 Foxberry-road Brockley Kent spinster died 27 September 1908 at Pollard's Farm Ditchling Common Sussex Probate **London** 21 October 1908 to Jane Priscilla Butcher (wife of Richard Edward Bowar Butcher). Effects £304 3s. 8d.

**PENFOLD** Peter of 23 Ninfield-road Newhaven Sussex died 14 June 1908 Probate **Lewes** 27 June to Ernest Thomas Wellsted solicitor. Effects £422 16s. 11d.

**PENFOLD** Sarah of 16 Whyte-lane Chichester spinster died 9 December 1907 Probate **Chichester** 16 January to Harry Loader Faith draper. Effects £84 8s. 6d

**PENFORD** Charles of Leigh Park Gardens Havant Hampshire gardener died 2 July 1908 Probate **Winchester** 24 August to Charles Fletcher Hunt general agent and Ernest George Marshall baker. Effects £859 7s. 7s.

**PENFOUND** Ernest James of Sun-street Birkenhead Cheshire died 12 March 1908 at the Northern Hospital Liverpool Administration **London** 27 May to Ada Penfound widow. Effects £60.

**PENGELLEY** George of 25 Bitton-hill Teignmouth Devonshire naval pensioner (gunnery instructor) died 5 March 1908 Administration **Exeter** 16 April to Louisa Pengelley widow. Effects £255.

**PENGELLY** Elizabeth of 25 Wolsdon-street Plymouth (wife of Emmanuel Pengelly) died 28 October 1908 Probate **Exeter** 24 November to Edward Pengelly engine driver. Effects £326 6s. 8d.

Richard Perry



# The Gardens of the Earl of Portsmouth,

## At Hurstbourne Park, Whitchurch.

TWELVE years ago there was a disastrous fire at Hurstbourne Park, the Hampshire seat of the Earl of Portsmouth. The old Elizabethan mansion was reduced to ashes, and the immediate surroundings suffered severely. There has since been erected a handsome modern residence, framed in a setting of great beauty. Lord Portsmouth, who is keenly interested in horticulture, and especially in trees and shrubs, directed the work of reconstruction, and Mr. Richard Perry superintended proceedings in the pleasure grounds. Mr. Perry, who started his career at Moreton House, Bideford, and was afterwards on the gardening staff at Eggesford House, Devonshire, for a couple of years, has spent three decades of his life at Hurstbourne. For the first two he filled the post of foreman, and for the remainder of the period he has been in charge. Lord Portsmouth, in complying with my request to visit the gardens, stated that Mr. Perry would afford me all the information I desired; and after my arrival, I commenced enquiries on the upper lawn terrace. Here the collection of clipped Yew trees is a charming feature. There are both standards and pyramids, all equally thriving, and perfectly clipped.

"There are eighteen pyramids," said Mr. Perry, "and the varieties of the Taxus are T. elegantissima (golden), baccata (English), and fastigiata (Irish). This portion of the terrace faces south, and on the wall the Exmouth Magnolia is very much at home. But the other varieties will not flower."

THE TERRACE BEDS AT HURSTBOURNE PARK, WHITCHURCH.

"Of course, you have to give particular consideration to getting soil to suit the different plants? What is the nature of the soil?"

"Pure chalk, which means that in planting we have to put in a quantity of special soil. Lord Portsmouth appreciates colour effects, and we get them as much as possible from shrubs and flowering plants. The colour is a strong point of the standard Golden Yews, of the Thujas, and of the Cupressus."

"Some of the Thujas seem to be a mass of gold."

"One is biota, a golden variety; and T. gigantea aurea is another. One of the most decorative of the Cupressus is C. lutea variegata, a silvery form of C, Lawsoniana. We have raised several seedlings of C. Lawsoniana compacta.

"Colour is considered in the choice of plants for the large Italian vases. Paul Crampel Geranium is used for red, and Calceolarias Golden Gem for yellow. Paul Crampel is also employed in the inner portion of the terrace bedding, along with Flower of Spring, golden Calceolarias, seedling Verbenas (deep purple), Heliotropes Lord Roberts, and a line of Iresines. In the centre of each bed is a standard Portugal Laurel, and the edging is divided between blue Lobelias and dwarf Ageratums."

### MORE COLOUR COMBINATIONS.

"In the outer beds Paul Crampel has a groundwork of white Marguerites and Iresines. On one side there are Ageratums in the corner, and on the other, with silver variegated Geraniums in the beds, blue Lobelias occupy similar space. As to colours, red and yellow predominate in the inner beds, and red, white, and blue in the outer. Later on purple will take the place of the red."

"Do you maintain similar colours in spring?"

"Yes. Red and yellow are represented by Wallflowers, and blue by Myosotis. For edging, double white Arabis is used. We propagate two thousand plants, and put in cuttings at the end of July."

"How many Wallflowers are used for these beds?"

"Two thousand, and altogether we bed five thousand, and two thousand Paul Crampel. The five varieties of Wallflower are Sutton's Cloth of Gold, Fire King, and Blood Red, and Veitchii red and yellow.

"With regard to the two wings of the lower terrace sloping back to the beds, there are flowering shrubs on each side. On the east side a hedge of Cupressus Lawsoniana erecta is conspicuous, and its colour effect is heightened by the surrounding golden Retinospora (plumosa aurea). The Cupressus require to be planted thickly; these were put in nineteen years ago, and are now between four and five feet high. The best time for planting them is October. In common with other Conifers, we use the knife freely to them."

### FAVOURITE SHRUBS.

"In the border below the wall, Berberis stenophylla and Darwinii, Buddleia globosa, Carpenteria californica, Choisya ternata, Spiræa aruncus, Escallonia macrantha, Acer purpureum, the golden Eryngium, and Cistus in variety, are the principal shrubs, while the flowers include Delphiniums, Alstrœmerias, and Phlox. On the wall itself there are Tea Roses at intervals, with the purple Vine and Ceanothus Veitchii intermixed. The Roses on each side of the steps and balustrading are Bardou Job and Reine Olga de Wurtemburg.

"On the west side the golden Berberis, the white Choisya, and the purple Acer blend well together, and two Camellias thrive in the open. They are the double red and pink, and they flower in April and May. They are protected by the Elms above. On this side the hedge of Cupressus is six feet wide. Among the fine specimens of trees is Azara microphylla; and in the border with the Roses are Eriobotrya japonica, Olearia Haastii, Garrya elliptica, Myrtles, and a very delicate shrub which was grown from cuttings brought from Falmouth. The Park, which is studded with a herd of deer and a flock of St. Kilda sheep, is seven hundred acres in extent. The Beeches, Elms, Oaks, and Chestnuts are particularly fine."

Proceeding to the kitchen gardens, which are on a large scale, we spent a considerable time in the contemplation of a singularly brilliant herbaceous border, one of the finest in the south of England. I asked for the dimensions.

"A hundred yards long, and twelve feet wide. It was planted on one side of the green path about ten years ago. The wall above is covered with white variegated Ivy; and on the other side are Roses, Honeysuckles, and Vitis on trellis. The Roses are Dorothy Perkins, American Pillar, Wallflower, Turner's Rambler, Paul's Crimson Pillar, Wichuraiana, Crimson Rambler, Tea Rambler, Aglaia, Mrs. W. J. Grant,

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Waltham Climber, and Lady Gay; the Honeysuckle is Watermouth Castle. It will, no doubt, suffice if I mention a few of the varieties of flowering plants in the border, which are used in quantity. They include Delphiniums, Canterbury Bells, tree and herbaceous Pæonies, Antirrhinums in variety, blue Salvias, Verbascum caledonica, Galegas in variety, Roses Gruss an Teplitz, Potentilla Vesuvius (used for table decoration), Thalictrums, Anchusa (Opal variety), Becconia cordata, Aconitum, blue and white, and Lysimachia vulgaris. The prevailing colours are blue, pink, scarlet, and yellow. There is not much white, but the varying shades of green foliage add much to the beauty of the whole.

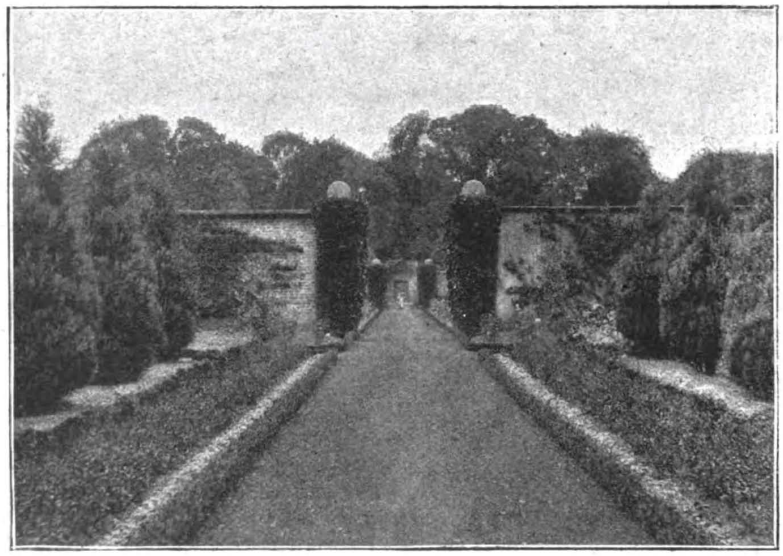
"We fill in with annuals. I can recommend dark blue Phacelia, and an orange-flowering Gillia resembling Potentillas. The latter is sown in July and kept in a very dry place until it is planted out. Damp is fatal to it. There is also a very good collection of Oriental Poppies, of which the best are multiflorum (a deep crimson), Princess Ena, Opal, and Miss Perry. Sweet Williams are a strong element. Of Stocks, I rely a good deal on Sutton's Christmas Pink, which flowers in the winter in pots, and is put out in the border during April."

### THE WATER GARDEN.

"How do you vary the contents of the ribbon border?"

"In spring it is filled with varieties of Narcissus; now, as you see, with Iris germanica, blue and purple, and Sweet Williams Sutton's Crimson, and Antirrhinums Fire King at the back. In the autumn it will be devoted to Chrysanthemums.

"Now we come to the latest extension, the water garden, which was only finished in March. Prior to that time it was a Rose garden on the level, but for its present purpose it was sunk between four and five feet deep. The Fern beds round the centre of the Lily pond were made especially for Iris kæmpferi. The Lilies were in flower six weeks after they were planted out in baskets in the water. The varieties of Lilies are Wm. Wallace, Black Prince, Orange, Mdlle. Berel, and Mr. Roosevelt. The pavement, of irregular stone, is planted with Alpines in the crevices."



ONE OF THE FLOWER BORDERS AT HURSTBOURNE PARK.

### ROSES AND VIOLAS.

"In the border which runs all round the garden are Roses in variety—crimson, pink, yellow, lemon, and white, with a groundwork of Violas. Under the pink Roses are ordinary purple Violas; under a lighter colour, Royal Purple; under the yellow, V. cornuta purpurea. The border at the back in a shady position is planted with Primula Kewensis and rosea, with a collection of Camellias between them, and an edging of Violas White Swan. The border also contains Amphicome Emodi, a pink flower."

"You seem to have every shade of colour represented in the bed of Pansies. Are they named varieties?"

"No; they are Sutton's giant strain mixed. They were sown in June last year, and have been in flower since the middle of April. I expect they will last till the middle of August. You will notice that all their faces are turned towards the west, and that they are not exposed to the sun. Other beds contain Tree Carnation Britannia, and Heliotrope Lord Roberts, standard and dwarfs. Above these beds is a very handsome piece of Retinispora plumosa aurea, which gives a finish to the corner. Part of the original garden was made in 1778."

"What is your system of planting Sweet Peas?"

"They are planted a foot apart, five seeds in a clump. The varieties include Afterglow, Gustav Hamel, Mrs. Denholm Fraser, Dazzler, and Clematis, one of Eckford's new varieties. In another bed in the kitchen garden is a collection of border Carnations. We have about five hundred Chrysanthemums, three hundred bush and the remaining large-flowering, in five or six different colours. We grow a quantity of one colour in order to make a good display."

### CHERRIES IN POTS.

"Are there any special features in the houses?"

"Cherries in pots are grown in one of the Peach houses. Last year we had seventy pounds of fruit the size of Plums off one tree in a 15-in. pot. The variety is Black Tartarian. The trees are over fifty years old, and they give much better crops than young trees. Peaches are grown over the trellis, and we get Dymond of great size. In the stove there are a few Orchids, a collection of Caladiums, Ferns, Pandanus, and on the wall Plumbago capensis and Clerodendron fallax. One house is entirely devoted to Tree Carnations, embracing all the latest varieties. Then we go in considerably for Amaryllis, which are flowered at Christmas. It is very unwise to coddle the bulbs, when they are resting. These have been out since June 26th, protected by a high Box hedge.

"As to some of the outside fruit, we had a splendid crop of Strawberries this year, the heaviest ever known, the varieties being Royal Sovereign, Latest of All, Leader, Waterloo, Bedford Champion, and Givon's Late Prolific. The Raspberries in the cage also produced an excellent yield. Apples, Pears, and Plums are grown in quantity, the Apples chiefly in the orchard. None of the trees is allowed to exceed ten feet in height. Blenheim Orange, Warner's King, Peasgood's Nonsuch, and Bramley's Seedling are some of the best."

### A SUCCESSION OF PEAS.

"You appear to have a long succession of Peas."

"Yes, the rows total altogether to sixty yards. We began pulling on May 26th, and no doubt shall continue till the end of October. The varieties are Langley Gem, Sutton's May Queen, William the First, Veitch's Extra Early, King's Number One, Lord Kitchener, Criterion, Moneymaker, the Twentieth Century, Chelsonian, and Autocrat. Other vegetables include a nice batch of Cauliflowers, Sutton's White Queen, and a new variety called Express. If you want small Cauliflowers, which are always the best, they should be planted very closely together, fifteen inches one way and twelve the other. Most of the Potatoes are grown in a field, and include Veitch's Ashleaf and Sutton's White City. There is no difficulty in cultivation." ALFRED WILCOX.

The gardens belonging to Mr. A. W. Stirling, at Holme Lee, Goring-on-Thames, Oxon, will be the subject of next week's interview.

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Mrs. A. Illingworth, of Bradford, has decided to give Dorothy Perkins Rose trees to all her Oakworth tenants in order to make the village still more beautiful.

The common impression is that Orchids are wholly exotic in Britain. But there are no fewer than forty varieties of British wild Orchids, though it is true that none of these can be called common. Another plant well-known in this country is none other than the Tea-plant, for the flowering Camellia of the hothouse is practically the Tea-shrub, botanists recognising no essential difference.—MR. H. E. CORKE.

**Bulbs Beautify every Garden. See the Bargains in the Advertisement pages.**

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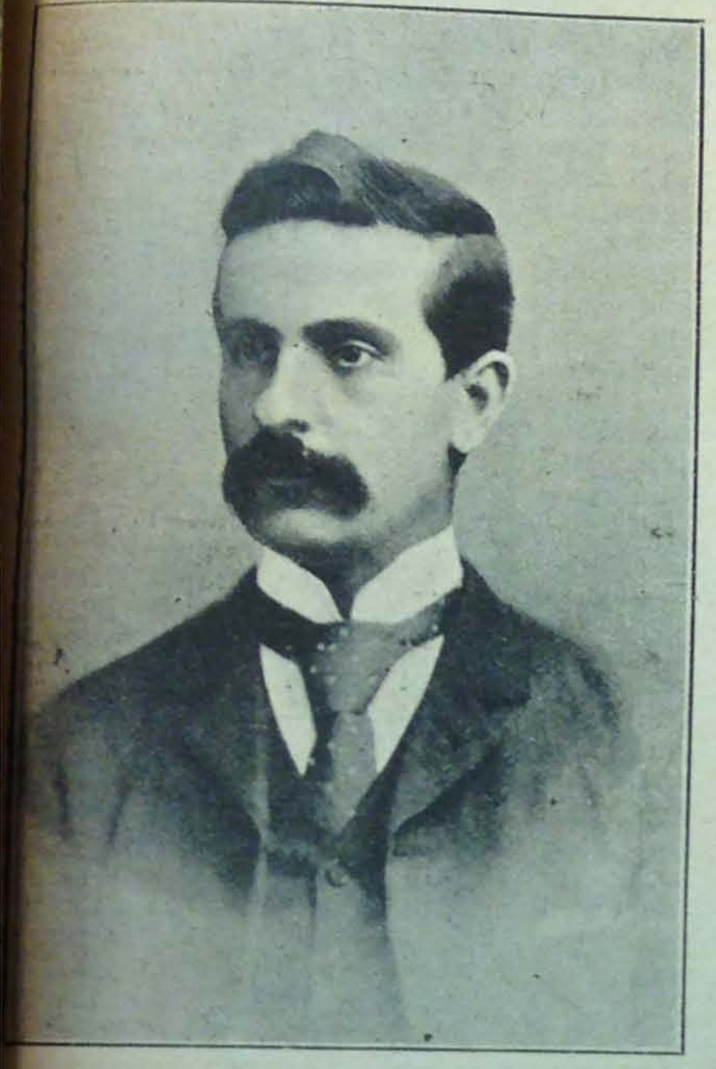
ave mixed them, while still quite hot, with the oil in which seeds were to be sown, the result eing earlier germination than would otherwise ave been the case. The difficulty has always een to get enough wood ashes, and I am bliged to a correspondent who tells me of a ay which is new to me. In every large town,



Mr. John A. Peskett.

says, there are provision firms that cure r own bacon. They use for the purpose sawdust of Oaks, Chestnuts, and other dark-ded trees, and the ashes are thrown away rubbish. Anyone who cares to send can e any quantity for the mere trouble of taking way. If that is correct, I strongly advise who have gardens to send to the nearest on-curing establishment and get all the wood es they can. Even if a small charge were le, the money would be well laid out.

**ding Strawberries.**

pril 6th.—Everyone who grows Strawberries t have noticed that a spell of hot sunshine n brings the crop to a premature close, cially on soil which is light and dry. Of se, if an abundant supply of water could be ided, it would be different, but this is m possible—at any rate, on a large scale. e experiments have been carried out in rica to ascertain whether the fruiting period d not be prolonged by means of shading. cheese cloth was stretched over the plants e height of rather under two feet from the nd, but, even where the yield was larger, ncrease was not sufficient to pay for the ional expense, and the shaded fruit was or in colour and flavour. It was also later the unshaded fruit, in spite of the fact that mperature was, on the average of twenty-hours, higher than it was outside. The al conclusions were that shading, by ng evaporation, preserves the moisture in oil; that, by raising the temperature, it lates growth, but that it retards fruiting, poils the quality of the fruit. For such as Celery, however, it would, in a hot, ason, probably prove beneficial. It is dinary practice to grow Celery in the most position in the garden, and unless the are deluged with water in summer they t to flag, and sometimes to run to seed, weather. It might be worth while to try or two in a more shady situation. In a wet year they would probably do badly, but if it were hot and dry they ought to be a success.

**Stately Elms.**

April 7th.—Where trees are wanted for shelter, Elms are admirably adapted to the purpose. A well-grown group is a magnificent sight. They grow, too, with great rapidity, often reaching a height of twenty-five or thirty feet in ten years. Though the Elm is said not to be indigenous, there are many fine specimens in the country, some over a hundred feet high, and a couple of hundred years old, at least.

H. C. Davidson.

# Famous Gardeners at Home.

No. 233.—Mr. JOHN A. PESKETT, at THE GARDENS, CREECH GRANGE, WAREHAM.

In spite of the fact that I drove most of the way from Wareham station, towards the end of February, in a smart snowstorm, I was able to appreciate the beauty of the scenery in which Creech Grange, the seat of Mr. G. D. Bond, is situated. This is one of the loveliest spots in Dorsetshire, and its charms cannot be concealed by any freaks of the weather. Mr. Bond's estate extends over some five thousand acres in the Isle of Purbeck, and the handsome mansion, which dates back between four and five hundred years, together with the gardens, enjoys the shelter of the celebrated Purbeck Hill, an elevation dominating the district. The shelter affords protection from wind. Quite a feature of the place is the chapel of ease to the parish church of Steeple, which stands in the grounds, facing the gardener's cottage, above the Grange and buildings. The large number of fine trees enhance the picturesque character of the surroundings, and the walks in every direction are delightful.

But, on my arrival, Mr. Peskett, the head gardener, suggested that in order to give the snowstorm a chance of abating, we should start our round of inspection in the safe shelter of the greenhouse.

**Tomatoes and Geraniums.**

"What do you grow here, chiefly?" I asked.

"Tomatoes in the summer, and Geraniums in the winter. The varieties of Tomatoes are Toogood's Wonderful, and a seedling of my own. The former are also grown, for early work, in another house."

"Have you named your own seedling?"

"No. I got a first prize for it last year at Wareham show."

"Do you go in more largely for single or double Geraniums?"

"We prefer the doubles. Altogether, there are about a hundred and fifty. Among the best of the double varieties are Hermione (white), King of Denmark (clear salmon), Leviathan, Raspail Improved, Lady Ilchester, and Princess Charles of Denmark. The singles include Dryden, Oliver (which is very good), Rev. Dr. Morris, Fanny Catlin, Hall Caine, and Mark Twain."

**The Treatment of Celsias.**

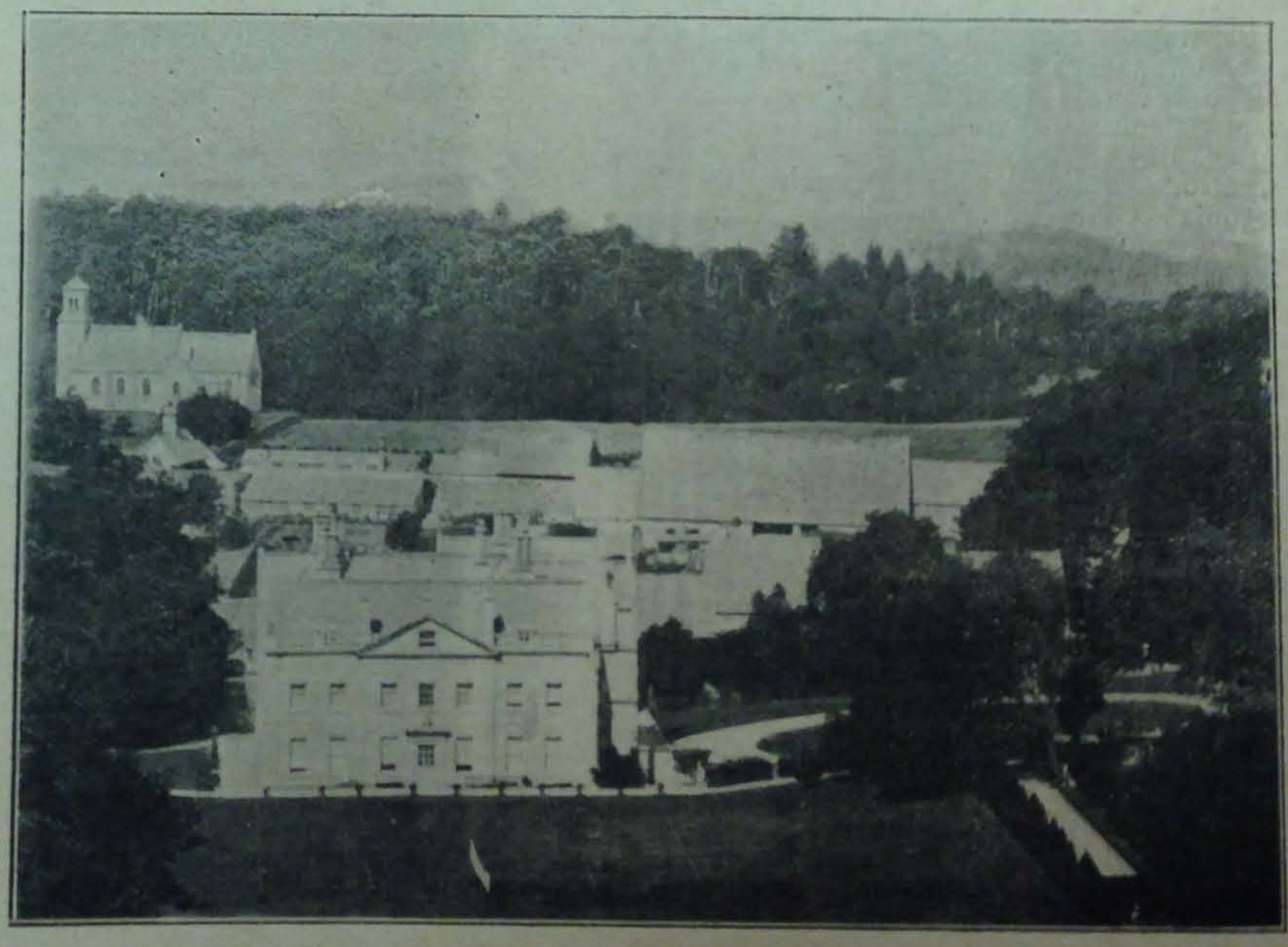
"I notice you have a number of Freesias."

"They are all home-grown bulbs, and one variety (refracta alba), and we grow from five to six dozen pots. The Primulas include a hybrid seedling stellata of my own; it does not come true to colour, but the flowers are very pretty. We grow a few Celsias for pot work."

"What is the treatment for them?"

"Ordinary greenhouse treatment. Some people grow it for bedding, and others for spring work. For summer show, the seed should be sown very late in the autumn, about October. The flower is yellow, and the blooms begin in February and last on to April. The plants in this house are about nine months old."

"How many varieties of Clivia do you grow?"



Creech Grange, Wareham.

"Two. These have been in the pots for years, and are only top-dresssed. When once they are established, Clivias do not require much treatment, needing, chiefly, a little rest and a fair amount of feeding."

We next went into a late Vinery, which was built for a Rose house, and Mr. Peskett said,

"We have four varieties of Vines planted here, namely, Mrs. Pince, Foster's Seedling, Black Hamburgh, and Black Alicante. They do very well, but will be all the better for a little more sun, as this house has an east aspect. We have, in this house, between seven or eight dozen of Cinerarias in small pots. They are a cross between Covent Garden and Stellata, the flowers not being so stiff as Covent Garden, and not so tall as Stellata."

"Do you save your own seed?"

"Yes. I generally grow Cinerarias in 5-in. or 6-in. pots, and this season I have some in 4-in. pots. They are very handy for house or church decoration. The latter has always to be considered, because we decorate the church."

**Spiræas and Gloxinias.**

"Then you find Spiræas useful?"

"Yes. I force them for cut flower, and, as you see, we get some very good specimens. After I force them, I split them up and plant them again. The variety is S. japonica, and it grows under a west wall outside. In order to flower well, however, it must have a sunny position. It is quite useless to plant Spiræas on an east or north situation. You may like to know that Clianthus puniceus flowers outside without protection; it is usually at its best towards the end of April."

"What do you grow chiefly in the stove?"

"In the summer we usually have Gloxinias on the shelves—about a hundred, Veitch's strain—and we get some very good flowers."

**Crotons and Table Decoration.**

"Your Crotons, Pandanus, and Dracænas seem to be of very good colour?"

"Yes, we have a nice lot of young Crotons, and, of course, the great point in Crotons is the colouring. The best of the varieties here, I think, are Prince of Wales, Warrenii, Johannes, Chelsoni, Aigburth Gem, Countess, Weismannii, Golden Ring, interruptus aureus, and angustifolius. Crotons pay for attention, but they need a good deal of it."

"Have you shown any?"

"Last year I put up a group at Wareham show. For table decoration I consider that Countess and Johannes are the two best. I am very fond of growing Crotons, and consider that, except Caladiums, there is nothing prettier in the foliage line.

"Here, also," continued Mr. Peskett, "we grow Begonia Gloire de Lorraine, a few Orchids, a few Abutilon Thompsonii, for bedding, and some Palms, which we work from seedlings. In this house, too, we grow batches of Cucumbers, chiefly Veitch's Sensation and Lockie's Perfection."

**System With Callas.**

"Your early Vinery, I suppose, dates back for some years?"

"About sixty, I think. We have just started it; they are Black Hamburghs and Buckland's Sweetwater. Both these Vines are quite half a century old, and continue to carry good crops. In the second Vinery, where Muscats only are grown, we have about a hundred Calla Æthiopica."

"What is your system with them?"

"They are all grown in 6-in. pots, not planted out; some of the plants carry four flowers, and I have been cutting blooms off them since November. I have a few of the Little Gem variety, but prefer the others."

"You have some healthy plants of Schizanthus?"

"About three dozen; the variety is grandiflora hybridus. Another plant that is useful for house decoration is Genista; the flowers last a couple of months. We also grow here a few of the old-fashioned Labonnia."

**Peaches and Pelargoniums.**

"Is your Peach house cool?"

"Quite. The only Peaches we grow are Barrington, Dymond, Sea Eagle, Walburton Admirable, Late Admirable, and Bellegarde; but we get some exceedingly good fruit. The only Nectarine in this house is Hardwick's Seedling. The trees were on the wall before the house was put up. It faces south, and perhaps this accounts for the fact that, as you see, we have still, on the 23rd of February, some Chrysanthemums in flower. The variety is L. Canning."

"Now, you might tell me, please, what you grow chiefly in frames outside."

"We go in for fourteen or fifteen varieties of Pelargoniums, including Hamlet, Polly, Kingston Beauty, Madame Thibaut, Beronia, William Smith, Aerial, and Duchess of Alexandria. Then we grow about a hundred and fifty Chrysanthemums—a hundred large blooms and fifty bush plants. Here are half a dozen of the best: Florence Penford, J. H. Silsbury, Lady Conyers, F. S. Vallis, Lily Mountford, and Miss Elsie Fulton."

**Early Violets.**

"I suppose you have a large quantity of bedding Geraniums?"

"About two thousand. They are the great feature in the bedding, and, in order to protect

The Drive at Creech Grange.

them from the rabbits, which are a great trouble here, we have to use wire netting all round the beds."

"How many Violets do you grow in your several frames?"

"Upwards of eight hundred, all Marie Louise, which, I find, is the most useful variety."

"When do you begin picking?"

"In September, if the weather is favourable, and I continue till April. I have been picking three dozen bunches a week from these frames during February."

**The Kitchen Garden.**

The snowstorm having ceased, we proceeded to the walled-in kitchen garden, which is of considerable size, and slopes towards the west, a conspicuous feature being a Yew hedge, which, Mr. Peskett informed me, has been there about two hundred years.

"Strawberries," I said, "seem to be grown on a large scale."

"Yes, we have a large breadth of plants. Last year a late frost spoilt the crop. The varieties are Royal Sovereign, chiefly, Dr. H. Waterloo, and Viscomtesse Hericart de Th. We have also a great breadth of Cele Solid Red, Sandringham, and Leicester. Our soil is light, and suits Celery extre well."

"And Asparagus?"

"Yes, we have four beds of Asparagus (Co ver's Colossal). Another vegetable w thrives here remarkably is Cauliflower, wh stands out of doors during winter. The va ties are Autumn Giant and Walche Onions, likewise, bear the winter very well; variety here is Ailsa Craig. We also grow early work, a few of Toogood's Champion.

**A Poor Fruit Country.**

"What sort of fruit country is this?"

"Very poor. Cherries will hardly grow all out of doors. Plums do best out of do but the soil is too sandy for Pears. Apples mainly grown in the orchards, and consist great many varieties; some of these—nota Worcester Pearmain, Mannington's Pearm Blenheim Orange, and Cox's Orange—do fa well. The Plums are Golden Drop, Jeffer Kirke's, Transparent Gage, Magnum Bon and Victoria."

"Does the soil affect bush fruit adversely

"No; on the contrary, the crops of b fruit are usually satisfactory. The Raspber which I planted, are Baumforth's Seedling, the canes bear well. The Red Currant, B Currant, and Gooseberry trees are very old, we pick any quantity of fruit from them. Black Currants do not suffer from the mite.

"I see that you also grow Violets ou doors."

"Yes, under a west wall, out of the sun. variety is Princess of Wales. The Roses this garden are Hybrid Perpetuals, and plenty of flower in the season."

**The Pleasure Grounds.**

As we proceeded past the Grange, I asked extent of the pleasure grounds.

"Thirty acres," replied Mr. Peskett. "P tically, a wood was converted into plea grounds. There are four ponds in the grou and probably the principal feature is the l number of Azaleas, Rhododendrons, Kalm and Andromedas."

"How many beds are there to provide for the house?"

"Ten, and the summer bedding consis Geraniums, Begonias, and Heliotropes. Palms in the open are very fine; they h been growing for fifteen years without pr tion. The Lemon plant also grows out of d without protection."

"Do the Irish Yews, which form an ave each side of the tennis court, give you m trouble?"

"No, they have never even been tied, and not trimmed with shears; I suppose that are a hundred years old. The circular driv the main entrance is rather a feature. On wall different creepers are grown, and, on other, Ivies; while, in the borders bene Wallflowers and Stocks are on one side, Pinks (Mrs. Sinkins) on the other."

**Magnolias and Bamboos.**

Walking through some of the avenues of which are admirably kept, Mr. Peskett c my attention to the fine Scotch Firs, to Magnolias (grown without protection), an the Bamboos which flourish in the woods weeds.

"I conclude that you have a large numb bulbs planted?"

"In April it is almost impossible to get here without treading on flowers. Daffo Narcissi, and Primroses come up in thous and make the place a perfect picture. A beauty of Creech lies in the outside, an this season of the year you can hardly form idea of what it is like a few months later. feature which is worthy of mention, just the avenue of Limes which leads to the garden, is the Camellia garden."

"How long has it been in existence?"

"About twenty years. There are several varieties of all colours, both single and double. In the bog garden, Kalmias and Azaleas do remarkably well, and what we call the first Rhododendron garden made is remarkable for the growth of the shrubs. We cut all the Laurels away and planted Rhododendrons, for which the soil is so congenial."

**Liliums Destroyed by Squirrels.**

At the top of one of the numerous grassy ascents in the pleasure grounds, we came suddenly upon about an acre of ground, on which vegetables and fruit are grown.

"Do you grow Liliums outside?" I inquired, as we retraced our steps, the rain now dripping from the trees.

"The natural conditions for growing them are splendid, but squirrels eat them. I planted large quantities, and, finding they were interfered with, concluded that the deer were the culprits, and fenced the Liliums round with wire four feet high. Then I discovered that the squirrels ran up the wire and did the mischief."

"What are the principal plants you grow in your several herbaceous borders?"

"We have a very good collection of Michaelmas Daisies, several varieties of shrubby Phlox, Gaillardias, Spanish Iris, and Belladonna Lilies. All varieties of Ericas thrive here, and we have some in flower just now."

"How long have you been at Creech Grange, Mr. Peskett?"

"Four years. I have only exhibited at local shows, and we really want a good horticulture show in Dorsetshire. Until last year we had not had a flower show at Wareham for twenty years, and there is not to be another till 1907. I am sure that it is an advantage both to professional and amateur gardeners that local shows should be held regularly, and competition encouraged by every legitimate means."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 192.—WINDOW BOXES IN SPRING.

DEAR KATE,—If you took my advice in the autumn, and filled your boxes with double pink Tulips between pots of flowering shrubs, you will now reap your reward, for few arrangements can beat good plants of Laurestinus, or Choisya ternata, about fifteen inches high, now covered with bloom, when the lovely flowers of such Tulips as Albano Murillo and Salvator Rosa peep out between the mass of white flowers, like Roses in colour and shape, at a little distance.

**An Effective Combination.**

Another very good combination of tints is arranged by plunging pots of Mahonia aquifolia (with shining, bronze foliage, splashed with crimson and pale primrose blossoms) in the box in autumn, and adding Daffodils of any early variety you like to choose, such as Narcissus obvallaris, the Tenby Daffodil, or N. princeps, in a mass behind and between the pots, for the golden flowers are shown to perfection by the glossy, dark foliage of the Mahonia.

I am not very fond of the ordinary Hyacinth; it is too stiff in shape to be so graceful as our own wild Bluebell, or the Italian Hyacinths, but a few dwarf Hyacinths in front make a nice border to these mixed shrub and bulb boxes, or you can add Crocuses in variety, which will make the box gay in February, and can now be lifted out and planted in the borders or the grass, wherever you please, for they are most accommodating bulbs, and don't seem to mind a bit when one moves them, either before or after flowering, but go on just as before, if you keep them moist.

**Some Useful Subjects.**

I hope you sowed plenty of Myosotis (Forget-me-nots) last year in May, also dwarf Wallflowers and Sweet Williams. If the seedlings were planted out in a nursery bed in July, you will now have some left, I daresay (after putting plenty of them into the borders or beds in October), to fill up gaps in your window boxes when you take out the earliest flowering bulbs, and these biennials are charming for the purpose, as they can all be lifted from the soil just as they are showing the colour of their flowers, and packed into anything you want to fill with colour and brightness.

But this operation is best done in damp, cloudy weather, and if you *must* do it, for immediate effect, in bright weather, the plants will droop unless you shade them in some way, or else take the box down, and let it stand (after planting it) in the shade of a north wall for a week before you put it again into the window, keeping the roots thoroughly moist, of course, and taking care to lift the plants with plenty of soil on them. In dry weather it is best to water them thoroughly before raising them, and you should always use a fork to get them up, loosening them carefully all round before the final plunge.

Another wrinkle is this: A shallow box or tray should be at hand, in which you can place the plants, to carry them to the box without dropping the soil from them; the careless plan of carrying them by their stems, in a bunch together, is fatal to success, for the soil is sure to drop away and expose their roots; and it is just these little items which make all the difference, you see.

A "PICTURE" COTTAGE.

Last year we packed a lot of the new dwarf Sweet Williams, in the loveliest shades of salmon-red and deep maroon, into a box (which had been full of early bulbs and small shrubs), in April, and edged them with Forget-me-nots. The effect was very brilliant in May, and most uncommon, and the flowers lasted just as long as we wanted them, *i.e.*, till the end of May, when it was time to fill the boxes for the summer. Wallflowers, too—nice, stocky, little plants covered with buds—are charming, and so deliciously fragrant that it is delightful to throw up the window on a sunny spring morning and inhale their fragrance. Myosotis of a good variety (such as Victoria, Perfection, or Royal Blue) harmonises perfectly, too, with their rich crimson-brown shades, and makes a good edging to them.

**Subjects for Shady Spots.**

For a shady window box, a different set of plants should be chosen. Primroses and Polyanthus, of many hues, can be grown with very little sunshine, however, and they are deliciously sweet and pretty, especially if half buried in fresh moss, with hardy Ferns behind them, and plenty of wood Ivy in trails over the front. Bluebells, too, and Scillas of other kinds, as well as Hyacinths, will do well in the shade, and you can raise dwarf Tulips from the garden (or from a box of sandy soil) of many brilliant hues to add to the show of colour.

But don't move the Tulips until the colour of the buds is visible, and then raise them with the same careful precautions which I have already mentioned for biennials. After the spring flowers are over, you can still keep the Ferns, and fill the boxes with pots of tuberous Begonias between, or Fuchsias; or, if you prefer it, plant Violas now in light, rich soil, for these are flowers which will do well in a rather shady spot, and blossom all the summer there, if you constantly pick off their flowers as soon as they fade, and supply the plants with plenty of good, light soil and soot water, as well as, of course, pure water daily in abundance.

The scarlet Mimulus (coccinea) is a bright and pretty plant, which will bloom in the shade, and all the Begonia tribe prefer it to the full glare of the sunshine, so that there is no reason why an almost sunless position should be without flowers in summer.

**The Tropæolum Section.**

All the Tropæolum family, too, are not too particular as to aspect; if you grow them at the south, you will have many flowers and few leaves, these being poor and inclined to turn yellow, whilst at the north they will reverse the process, for the foliage will be abundant and keep green in tint, with fewer flowers, indeed, but still enough to make the window bright.

Canary Creeper (Tropæolum canariense) makes a good climber for an arch over the window. This is easily arranged by knocking a couple of large-headed nails into the wood of the box at either end, with two more half-way up the stone sides of the window, two at the top on either side, and two at the middle point of the upper part of the window, so as to form a double arch when strong string is stretched from one nail to the others.

Nasturtiums of the climbing varieties are also useful for this purpose, and Tom Thumb Tropæolums, in contrasting shades, such as Scarlet King, The Pearl (in white), and others in deep crimson and primrose-yellow may be used to adorn the front of a window box at almost any aspect.

These can now be sown, if a second box be available to exchange with the one for spring flowers at the end of May, and the plan of having a double set of boxes for a window is an excellent one. Even a lady, armed with a small saw, a hammer, and some good nails, can easily make two long, narrow boxes from one square or oblong one (to be obtained from the grocer), by means of sawing it in two parts, and, after treating the cover in the same way,

time the roots get down into the subsoil, and, when that happens, the lower branches die off, one by one. Nothing can be done to stop this process, though top-dressing, by causing fresh roots to develop nearer the surface, may check it. If a tree begins to get unsightly, the best plan is to cut it down at once, and to plant something else in its stead. The Araucaria looks very well among other trees in large grounds, but in a small, suburban garden it is certainly out of place.

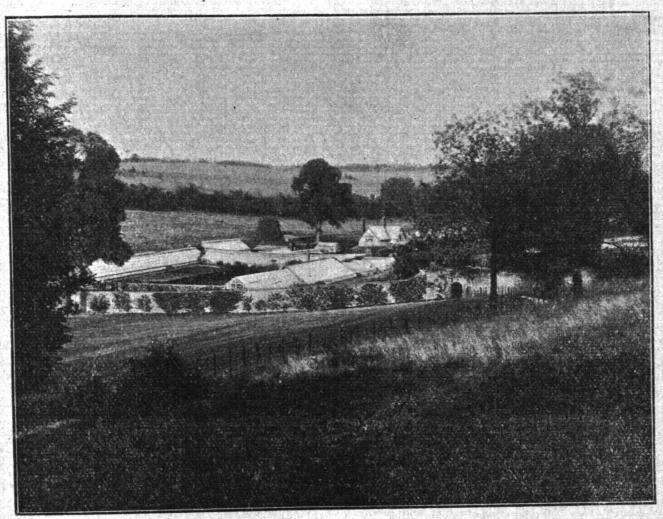
H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 167.—MR. WILLIAM PETERS, AT THE GARDENS, GIVONS, LEATHERHEAD.

AS may be imagined, there are several features of interest in the gardens at Givons, Leatherhead, which, by the courtesy of Mr. H. P. Sturgis, I had the pleasure of inspecting at the end of October. Mr. William Peters, who has been head gardener for seventeen years, and for eight has also acted as bailiff, is known in horticultural circles as a very successful fruit-grower, the raiser of a Strawberry which in a short time has achieved considerable popularity, and a clever all-round member of the profession. At the outset, on our way from the Lodge, through the kitchen gardens, to the house, a distance of a quarter of a mile, Mr. Peters drew my attention to an Apple tree, Bedfordshire Foundling, on to which was grafted Lane's Prince Albert three years ago.

"For years," he said, "we had only half a bushel of fruit on this tree, but this year—the first year the Lane's Prince Albert has fruited—we have had a lot of Apples upon it, quite a bushel, in fact. I believe that it is good policy to cut down old trees, providing they are healthy, and graft on them new sorts. It is a quick mode of getting a return of fruit. Four years ago I grafted Allington Pippin on to Ashmead's Kernel, and the result has been very satisfactory. It is a pity that people so often continue to grow anything cheap, glutting the market with inferior fruit, when, by different



THE KITCHEN GARDENS AT GIVONS, LEATHERHEAD.

methods, they could obtain better fruit, and with more advantage to themselves."

Along the garden walk we passed a large croquet lawn, and Mr. Peters mentioned that it was made about four years ago on the chalk. The task must have been considerable, but the lawn, which is on an eminence, and has some shady trees to increase its beauty, is without blemish. Conifers are not very numerous, but in the park, divided by railings from the pleasure grounds, is a very fine specimen of Abies Douglasi. An Ash Walk, with a plantation of mixed shrubs, is also a feature. The house itself, which commands delightful views, has, on the north-west side, Longworth Rambler and Reine Marie Henriette Roses, which bloom from the early summer to October. There were some blossoms left at the time of my visit. The creepers are Jasminum, Wistaria, and Clematis. On the other side are Aristolochia Sipho and Ampelopsis Veitchii, while on the terrace steps the Ampelopsis is mixed with silver-leaf Euonymus and Clematis Jackmani. Flowering near the house was a large specimen of the Macartney Rose.

"It came from America," explained Mr. Peters, "and is a very strong Rose of the rugosa type. It does not begin to flower until August, and lasts until towards the end of October. We used to cover it up in winter, but have ceased to do so, and find that it does not suffer in consequence. The flowers are at their best in September. The Berberis bank, now planted with Mahonia aquifolium, was formerly a mixture of Yews, Hollies, Aucubas, and common Laurels; but we find the change an improvement. In the summer the wall behind is covered with Roses, Felicité Perpetué and Crimson Rambler. The red and white flowers alternating make a pretty show on the conservatory terrace. As you see, there are a few Palms and Dracænas in the conservatory, which do well."

MR. WILLIAM PETERS.

"You have also an Orange tree in a big vase, and several old plants whose names I should like to know."

"The one with the beautiful yellow flower is Cassia corymbosa. It is, I think, rarely seen. Indoors it keeps green almost always. Less than five years since it was in a 6-in. pot; now it is all over the conservatory. Each year it is cut back to the main stem. It has been in flower for two months, and, if we let it, will keep on up to Christmas. Outside, the plants flower in August. Another plant that flowers nearly all the summer indoors, and has a Jasminum scent, is Jasminum angulare. It grows out of doors on the Continent. The plant with the green pods, resembling edible fruit, is Physianthus alba. It bears a little white flower, and is in bloom nearly all the summer. Here, also, we grow both varieties of Plumbago, but we do not use the conservatory for making a show of flowering plants."

"Do you go in for much bedding?"

"Our only set of beds is in the front flower garden. In summer the centre bed was full of big plants of dark Cannas, dotted with Hyacinths, edged with Echeverias and Lobelias, with a groundwork of variegated grass. The two oval beds contained tall plants of Heliotrope, with a groundwork of Ivy-leaf Geraniums Madame Crousse, edged with Echeverias. Another oval bed was filled with mixed Cannas, and an edging of white grass and Echeverias. There were also two beds of crimson Begonias, edged with Pyrethrums; two of yellow Begonias, edged with blue Ageratum; two of red Verbenas, edged with Geraniums Madame Celron; two of Calceolaria amplexicaule, edged with blue Lobelias; four beds of Geraniums Henry Jacoby, edged with Madame Celron; G. Queen of Belgiums, edged with blue Lobelias; and four beds of Begonias, two white, edged with blue Ageratums, and two pink, edged with yellow Pyrethrums."

"What is there in the beds now for spring flowering?"

"Pansies, Polyanthus, Wallflowers (Belvoir Castle and Harbinger), a few Myosotis, Alyssum saxatile compactum, red and white Daisies, Crocuses, and Aubrietias purpurea.

"All through the summer," continued Mr. Peters, "the Vesuvius Geraniums on the pedes-

tals were a mass of scarlet—these plants are supposed to be over forty years old—with a background of creepers, including Pyrus japonica, and varieties of Clematis flowering at different periods."

"How many Yews are there in pairs?"

"Ten Irish and eight Golden Yews. They have been there for thirty years. As you may observe, they are so arranged that a view through them may be obtained from the boudoir windows. We have to keep them wired in to prevent them dropping about."

"You have a variety of creepers on the terrace walls?"

"Yes, they include Choisya ternata (which grows like a Laurel), Ceanothus (the small and the large-flowering varieties), Escallonia macrantha, Weigelia rosea, Cratægus pyracantha (the Fiery Thorn), and Cotoneaster."

Proceeding to the Rosery, we passed through a noble avenue of Elms, noticing also a large bed of herbaceous Phlox, a little garden which is being made for the young ladies of the house containing mixed plants, a fine specimen of Choisya, struck from a cutting four years ago, and some Rosemary raised from seed about seven years ago.

"When was the very picturesque Rosery made?" I inquired.

"About thirty years ago. Adjoining the Rosery is a rough old bank planted with Periwinkles, Ferns, and Foxgloves, grown on old stumps of trees. The Roses are pegged down so as to obtain as much bloom as possible from them. The varieties include La France, John Hopper, Charles Lefebvre, Madame Clemence Jaigneaux, Abel Carriére, Baroness Rothschild, Madame Isaac Periere, and Captain Christy, etc. The Roses grown on the chains between the posts are Crimson Rambler, Alister Stella Gray, Paul's Carmine Pillar, Felicité Perpétué, and several old varieties whose names are not known."

Further on were several beds devoted to herbaceous plants, with Box hedges, four feet high, at back and ends.

"In the mixed beds," said Mr. Peters, "we usually have Helianthuses, Harpaliums, Malva moschata alba, Solidagos, Delphiniums (planted in large clumps), Hollyhocks, Sedum spectabile, Veronica spicata, Monarda didyma, Rudbeckia Newmanni, and a few Chrysanthemums, chiefly of the Masse family. The centre bed consists of Michaelmas Daisies, or Asters, some fifteen varieties."

"I think you have raised some Asters?"

"I have had awards of merit for two seedlings, Mrs. Peters (which was distributed about four years ago), and Daisy Peters (which was sent out two years since). Both are white."

"What is the acreage of the gardens?" I asked, after a look at the summer house, whose roof is covered with Wistaria, planted originally in pots, about thirteen years ago.

"The pleasure grounds are about seven acres, and the kitchen gardens and houses about three and a-half. The estate is upwards of a hundred and fifty acres."

Then we went into the fruit room, where I saw some magnificent specimens of Apples and Pears. They are admirably arranged in trays, so that they can be got at without taking them out. That there is also economy of space may be judged by the fact that six bushels of Apples can be placed in a row of thirteen trays.

"Judging by the size of your Peasgood's Nonsuch, that is one of your most successful varieties?"

"Yes, we have them a pound in weight. Among the other varieties, dessert and cooking, which I most strongly recommend, are Cox's Orange Pippin, Allington Pippin, Lane's Prince Albert, Claygate Pearmain, Cox's Pomona, Ecklinville Seedling, Bismarck, Adam's Pearmain, Ribston Pippin, Fearn's Pippin, Annie Elizabeth and Bramley's Seedling. I am gradually weeding out the varieties that do not thrive, with the idea of keeping only those that do."

"Which do you consider the most valuable Pears?"

"Josephine de Maltnes is one of the best late varieties. Among others equally good, which we grow on espaliers and walls, are Pitmaston, Beurré Clairgeau, Marie Louise, Souvenir du Congres, Beurré Diel and Beurré d'Amanlis. We grow also Durondeau, Doyenné du Comice (the best mid-season), Winter Nelis, Duchesse d'Angouleme, Gratioli of Jersey, Williams's Bon Chrétien, Glou Morceau, Thompson's, Louise Bonne of Jersey, and Easter Beurré."

The west wall of the kitchen garden, which we now entered, is planted with Plums, and here Mr. Peters commenced picking in the middle of July.

"The varieties," he said, "are Victoria, Orleans, Rivers' Early Prolific, Washington, Grand Duke, Pond's Seedling, and Early Transparent Gage. On the north wall of the outer garden we grow Lawrence Gage, Bryanston Gage, MacLaughlin's Gage, Guthrie's Late Gage, Denniston's Superb, and Coe's Golden Drop; and, on the north wall of the inner garden, Coe's Golden Drop, Jefferson, and Early Transparent Gage. Part of the kitchen garden dates back many years, but the top part was only planted in 1885."

"And the Friendship Garden, adjoining?"

"In 1896. All the contents of this garden were supplied by friends of Mrs. Sturgis. They include Roses, of the Wichuriana type, Liliums in variety, Californian Poppies, Jasminum, Clematis Citrosmum (from Cornwall), Tree Pæonies, and several varieties of Carnations. One plant, the blue Scabiosa caucasica, came from John Ruskin's garden; and many of the Roses from that of Lord Battersea, at Overstrand."

Turning into the main kitchen garden, which slopes to the north, my attention was attracted by a large batch of healthy-looking Strawberries.

"Are those Givons Late Prolific?" I asked.

"Yes. I have an order, from Messrs. Laxton, for 25,000 runners."

"When did you receive the award of merit?"

"On the 2nd of July, 1901, and a first-class certificate in 1902, from the Royal Horticultural Society. The Strawberry is a cross between Waterloo and Latest of All, the former being the seed parent. The fruits are very large, mostly of a cockscomb shape, and of a rich crimson colour. As a yearling plant, especially, Givons Late Prolific is remarkably vigorous and free cropping. Indoors we grow Royal Sovereign."

"Along the centre you have chiefly Apple and Pear trees?"

"With Violets on each side. On some of the arches there are Hops, and, on others, Roses. Along the north side of the garden there are Roses on either side, Hybrid Teas and Hybrid Perpetuals. We have exhibited garden Roses in bunches at the local shows with considerable success."

"Do you grow many varieties of Carnations?"

"The principal are Raby Castle (pink), Mrs. Eric Hambro (white), Francis Wells (deep rose), Hunter (apricot), Miss Audrey Campbell (yellow), Duchess of Fife (pale pink), and the Old Clove (crimson). These are the best doers. Early-flowering Chrysanthemums, grown necessarily under the trees, are rather a feature. They include Horace Martin, Goacher's Crimson, Marie Masse (pink and crimson), Desgranges, and Market White."

"You appear to have a large number of Stocks?"

"About four hundred plants. We had thirty-five spikes on some of them in July. They are East Lothian, crimson and white. We grow them both for cutting and for the perfume. Stocks should be sown early, in January, if flowers are wanted in June."

"How many houses are there?"

"Eighteen. Of early Nectarines we grow Cardinal, Violette Hative, Rivers' Orange, and Rivers' Early; and, of Peaches, Dymond, Royal George, Violette Hative, and Barrington. In other Peach houses there are Bellegarde, Newton (a very good flavouring), Marquis of Devonshire (a good cropper, a fair setter, and a good colour), Noblesse, Sea Eagle, Humboldt, and Pineapple Nectarines."

"You might name some of the Grapes?"

"Black Hamburgh, Madresfield Court, Gros Maroc, Gros Colmar. I took the third prize for Gros Maroc at the show of the Royal Horticultural Society in London this autumn. One bunch weighed three pounds and a half. Other varieties are Muscat of Alexandria, Mrs. Pince, Black Alicante, and Foster's Seedling."

"I believe that you have grown the American Grapes for some years?"

"Yes, I commenced growing them about eight years ago. There are ten varieties. I do not consider that the flavour is comparable to that of the best English Grapes, but they ripen very well without heat, and are, therefore, inexpensive. Any novice can grow them. The black varieties are Worden, Concord, Ennuelan, Isabella, and Strawberry; they all carry a rich bloom, and differ very little in flavour. Delaware, Brighton, and Iona are the red varieties. Delaware is very small in bunch and berry, but will crop at every joint; but Iona is the best to grow, because it will hang longer fit for use than any of them. The white varieties are Winchell and Niagara, the latter, which I prefer, being in appearance like Foster's Seedling."

"Before we leave fruit, I must not omit to ask you about Gooseberries."

"We grow Gooseberries both on the bush and on the cordon principles. I was awarded a silver Banksian medal nine years ago for twenty-four dishes. Those grown on cordons are High Sheriff, Companion, Telegraph, Philip the First, Monarch, Trumpeter, Drills, Snowdrop, and Alma; and the bush varieties are Whinham's Industry, Lancashire Lad, Rifleman, Jubilee, Yellow Rough, Green Gascoyne, Crown Bob, Warrington, Keepsake, Berry's Early Kent, May Duke, and Langley Beauty."

"How many Chrysanthemums do you pot?"

"Between three and four hundred, mostly bush varieties. Among the best of the late-flowering are Queen of the Exe, Framfield Pink, Niveus, Lincoln, and Lady Canning. Miss Mildred Ware makes a very good bush plant. Japanese varieties include Bessie Godfrey, W. R. Church, and Mutual Friend. Among the more up-to-date varieties are Duchess of Sutherland, Mdlle. Gabrielle Debrie, Madame Paola Radaelli, Mr. F. S. Vallis, Mrs. George Mileham, Miss Olive Miller, General Hutton, and Le Grand Dragon. In the winter we use the three little spans devoted to Melons, Cucumbers and Tomatoes in the summer, for Tree Carnations. There are about four hundred plants of the Leopold Rothschild variety."

"And how many Malmaisons?"

"Two hundred and fifty in big pots, only two varieties, Princess of Wales and Princess May. Altogether we grow about six hundred."

"Do you use them all?"

"No, we sell a considerable surplus in the market. We grow a great number of plants for that purpose, though, of course, the house and gardens are first fully supplied. Primulas, Violets, Coleus, and Begonias in quantity are among the other plants grown."

Then, having inspected the Mushroom house, ingeniously constructed in the hillside, which was built ten years ago, I got Mr. Peters to tell me a little concerning himself.

"Prior to my appointment at Givons, I was foreman for six years at Latimer, in Buckinghamshire, and before that I was at Nash Court, Faversham, Stoke Bishop, Bristol, and New Lodge, Windsor Forest, in succession. I have not shown largely, but I have won three medals for garden Roses."

"You have omitted to mention the seedling Apple which I saw in the fruit house."

"I raised that Apple from a pip of Cox's Orange Pippin, sown some fourteen years ago. Of the parentage I am not quite certain, but I believe it to be a cross between Cox's Orange and Reinette du Canada. Although I do not venture to assert that its flavour is equal to Cox's, I have hopes that, after a fair trial, it may take its place among the standard varieties of the day."

ALFRED WILCOX.

# FAMOUS GARDENS :: IN WAR TIME. ::

## HOW THEY ARE BEING MAINTAINED WITH REDUCED STAFFS.

***XV.—Interview with Mr. William Peters, Givons, Leatherhead.***

IT is thirty years since Mr. William Peters took up the post of head gardener at Givons, Leatherhead, and for the last twenty years of that period he has also acted as bailiff of the estate of one hundred and sixty acres, having charge of the farm, and of the famous herd of pedigree Jersey cattle. In horticultural circles he is well known, for he has been successful as an exhibitor, and has introduced several new varieties of flowers and fruits. One of the finest of present-day Strawberries, Givons Late Prolific, originated in these gardens as the result of a cross between Waterloo and Latest of All. It is now grown everywhere, and is catalogued by everybody; but Mr. Peters recalls with a smile that on its first introduction the trade were loth to have anything to do with it.

But Givons is now empty, and awaits a purchaser; the farm stock and implements have been dispersed under the hammer; and the gardens are virtually derelict—all but the kitchen garden, which Mr. Peters has this year "run" as a commercial venture. This he explained to me when I visited him towards the end of last month:

"When war broke out my employer, Mr. Henry P. Sturgis, at once realised the seriousness of the struggle, and thought that it was no longer a time for luxury gardens. So he suggested that it was the duty of all the young men to join the Army, and without exception they did so. He would not have them replaced, and said the lawns and gardens must go. Then last year he decided to give up the house and take a smaller one in London. The auctioneer was called in, the unrequired furniture, together with the farm stock, was sold; and now the house itself is on the market."

"And what is your position here now?" I asked.

### A COMMERCIAL VENTURE.

"I am just keeping on until a purchaser comes along, and am working the kitchen gardens for what profit I can get out of them. I give attention to the fences, and trim up the plants on the house, so that things do not get too wild. Any labour required is, of course, at my own expense; but I have only one old man, a woman, and a boy just left school."

"And what crops do you rely upon to make a profit?"

"Fruit principally, while for vegetables I have gone in largely for Onions, and all told have had half an acre of them. But I did not get started till March, and so had no time to do all I wanted in regard to preparing the ground. The Onion bed was not manured, and as fast as a piece was dug it was set out. But perhaps before I show you the kitchen gardens you would like to look round the grounds?"

I agreed, and we made our way up the incline from the lodge towards the house, Mr. Peters pointing out many points of interest.

The walk through this part of the grounds revealed the absence of labour, the grass paths, once kept so neat, now being a tangled mass, while the shrubs and trees were almost inextricably mingled. But coming nearer to the top of the incline a more cheerful prospect opened out, the grass being closely studded with Meadow Saffrons in full beauty.

"I could not let this go altogether," said Mr. Peters, "so I managed to get the scythe over it, otherwise the Colchicums would not have been seen. In the spring this glade is a blaze of yellow from thousands of Daffodils that are naturalised here."

Approaching the house, efforts have also been made to keep the plants from getting altogether out of hand, the Roses on the walls, and the various climbers, presenting a fairly neat appearance. Passing the tennis lawns, now entirely overgrown, we came to what was

MR. WILLIAM PETERS.

formerly the principal flower garden—where, indeed, the only bedding-out used to be done. Now, however, the beds are occupied with vegetables, while the herbaceous borders across the lawn are the only places where bright colour is revealed, save for the wild flowers—Scabious, Loosestrife, and others—dotting the grass. Wild flowers flourish in this part of Surrey.

Givons stands on an eminence, and from this glorious views of the surrounding country are obtained. After staying a while to take in their full beauty, we proceeded on our walk, coming round towards the back of the house. The farm buildings and stables are here, but no sign of life was visible, and grass is growing between the stones of the yard.

And now, leaving the house behind us, we proceed on our way to the kitchen gardens, passing some splendid specimens of the Ash—the Ash Walk is one of the charms of Givons—and other choice trees, including a symmetrical Yew, which has attained to very large size, and was bright with its numerous berries. Conifers are not numerous, but Mr. Peters pointed out several Australian Pines, which he has found do well on the chalk.

The kitchen garden is about four acres in extent. It lies in a valley, and slopes towards the north.

"Many people, when they have seen these gardens, have congratulated me on their position," said Mr. Peters, "because they appear so sheltered. But they forget that in the valley we are more subject to frosts in spring; and our temperature then is fully three degrees lower than it is on the hill."

"You have some very healthy looking Plums on the wall outside," I remarked, as we got nearer.

"Yes," was the answer, "they have given some remarkably good crops. This wall faces west, which is a great advantage in spring, because it escapes the worst effects of the spring frosts, as the sun does not reach it until the afternoon, and so does not harm the blossoms so much as in the early morning."

"What are the varieties of Plums?"

"There are Rivers' Early Prolific, Washington, Victoria, Pond's Seedling, Czar, Monarch, and Transparent Gage, and they are chosen to keep up a supply from July on to October. I had Potatoes in the border in front of this wall, and it is now planted with Turnips."

Entering the enclosure, the first thing that strikes the visitor is the large number of fruit trees, bushes and pyramids chiefly; and the next, the fact that they are all heavily laden with richly coloured fruits. Every path is bordered by Apples or Pears, and the beds are divided by hedges of the same fruits.

"This has been a splendid year for hardy fruit," said Mr. Peters; "but we must not expect the same returns next year, as we do not get such crops two seasons running."

"What are the best Apples with you?"

"They nearly all do well, but the best is, I think, Cox's Orange Pippin, which always wants a warm soil, such as this. We have a lot of this variety, and some of the trees will yield a bushel of fruit each. It is about ready for picking—in fact, I have already picked some for the early market, and got good prices. I will show you some bushes where the branches are weighed down with fruit."

"These Charles Ross Apples are beautifully coloured," I remarked, as we stopped to look at a tree.

"Yes, it is a handsome fruit," was the reply; "but it must be gathered when just ripe, or it gets 'miffy,' and does not keep well. It always drops a lot in July. This is a good eating Apple"—indicating another tree—"Rival, also one of Charles Ross's varieties; and it can also be used as a cooker. Newton Wonder crops well every second year; it is best to let the fruit hang till the middle of October. Alfriston is another heavy cropper, and a good Apple, though it has the same drawback as Newton Wonder, the flesh gets darker when cooked."

"What stock are the Apples grafted on?" I asked.

"They are all on the original Paradise stock, which is more precocious than the ordinary stock, and is rather difficult to obtain nowadays. I got it about thirty years ago, so that I take exception to the statement that is often made that the Paradise stock lasts only about fifteen or eighteen years. Moreover, this throws up plenty of suckers, and these provide us with all we want for stocks for grafting."

Walking on, other good-looking fruits were seen on every hand. Cox's Pomona, brilliantly coloured, and almost too large for dessert, was pointed out as a variety which keeps well till Christmas, and near by is Lady Henniker, also brilliant for colour, though different in shape. This keeps until February.

### NEW APPLES.

Then we paused before a variety of which Mr. Peters said:

"This is a new sort, Harry Pring, which I showed before the Fruit Committee of the Royal Horticultural Society. They gave it an Award of Merit. It was a seedling raised in a pot by the father of one of my friends, and I

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took some grafts from it, and named it after him. It is what I should describe as a conical Wellington, and has all the characteristics of Wellington, being both juicy and acid, and a good keeper."

"Is it as good a cropper?"

"It is a much better cropper, and gets bigger than Wellington. It keeps easily till May or June, and even then is full of juice. From six young trees I have gathered seven bushels of fruit."

Further round I had the opportunity of seeing many more of this variety, for Mr. Peters has planted it in quantity. The fruit is pale green, crimson on the side facing the sun, and of large size and handsome shape; further, it is a prolific bearer, and makes vigorous growth.

"Is it on the market yet?" I asked.

"I supplied a few trees to one firm of nurserymen, but otherwise it has not yet been brought before the public. I am working up a good quantity of it."

"When it gets known it should become a very popular variety," I suggested.

"It has everything that should make it popular," replied Mr. Peters. Then, as we moved on, he plucked a handsomely coloured fruit from a tree further round, and invited my opinion on it.

"That," he said, "is a seedling from Cox's Orange Pippin. I believe the other parent was Reinette du Canada, which stood next to it. It is ready the same time as Cox's."

"I do not know that the flavour is quite so good as Cox's," I observed, "but it is certainly a fine flavoured Apple, and the colour, too, is highly attractive."

"It is nearer to Cox's than Allington is, and it is in its favour that it is a better keeper than Cox's," said Mr. Peters. "Cox's begins to lose weight if kept much after Christmas, although I have managed to have it fresh until May by storing it in sand."

By this time we had reached the north end of the garden, where, on the wall, several Gages are grown for late crops.

"The soil at this end of the garden was only nine inches deep, but I have managed to deepen it by annual top-dressings of old potting soil."

"And how does it suit the Plums?" I asked.

"They do fairly well," was the reply. "On this wall, facing north, I have had nice crops of Lawson's, Denniston's Superb, and Bryanstone's Gage. McLaughlin's is a very fine flavoured fruit, but is not a good cropper on a north wall. Coe's Golden Drop is now cropping, and the quality is excellent. I have obtained a shilling and one and threepence a dozen for them."

"Have you a good local market?" I asked.

"I sell some of the produce locally, but the rest is sent to Covent Garden, where it has been sent for years."

"Are you also growing vegetables for market?"

"Oh, yes! For example, there are the Onions I have mentioned to you, which we shall come to soon; and I am in this bed planting spring Cabbages—two thousand Harbinger and five hundred Early April—which will be ready to pull in time for Potatoes to be planted in the same bed."

"And have you grown many Potatoes this season?"

"About a quarter of an acre was planted. I was late in starting, and had to take what I could get; but I obtained two good varieties—King Edward VII. and a little known one called Novar, which is a very good, clean tuber of the Up-to-Date type. They are being lifted now, and are yielding satisfactorily."

"I see you have Cabbages under the fruit trees."

"Yes; and this border, which is now filled with Turnips, was formerly lovely with Madonna Lilies, planted in dense patches, with other flowers between. These were all grubbed up, by Mr. Sturgis's orders, when war broke out. Nothing has been done with the other borders, so that the Michaelmas Daisies, Galegas, and strong-growing perennials are crowding out the finer things."

### THE FRIENDSHIP GARDEN.

Before going all round the kitchen garden we turned through one of the gates, and came out into what used to be the Friendship Garden.

"The idea of this," said Mr. Peters, "is that everything must have come from a friend's garden, and is associated with that friend's name, so as to be a continual reminder. But as you see, weeds have now taken possession, and are choking most of the plants, while the climbers on the pergola are right out of hand, and spreading across the path. The beds on the other side used to be full of flowers, but have been let to an allotment holder. On the walls at the back, which face south, I had a fine crop of Sweet Cherries."

Retracing our steps, and continuing our walk through the kitchen garden, we came to one of the beds which had contained Onions.

"This was a bad season for Onions, and the crop is at least a third less than it should have been. At the beginning there was a long spell of drought; then came mildew and the excessive wet. Then the seed I bought was not so good as my own—and I had not enough of that."

"Have you a strain of your own?"

"I have been working on a strain for the last twenty-eight years. I first crossed Rousham Park with Bedfordshire Champion; then the result I got from that I crossed with Ailsa Craig, and I have constantly selected and re-selected this. I find it does better in the shallow soil here than any I can procure elsewhere, and the bulbs keep sound till June."

Pears are grown in this section of the garden, and an example which, as Mr. Peters pointed out, seems to bear on the theory of transfusion of sap, is to be seen in an old tree of Flemish Beauty, which did no good until it was grafted with Doyenné du Comice, since which time Flemish Beauty itself has borne consistently good crops. The same thing has occurred in two or three other cases. But the bulk of the Pears are to be seen in the old kitchen garden, to which we next directed our steps. Before doing so, however, we stayed to inspect the fruit cage, filled with choice varieties of Gooseberries.

"This," explained Mr. Peters, "is a good plan for Gooseberries. Cordons are planted on fences, which are nine feet apart, and give a strong foundation for the cage itself. Bushes are planted between the fences. The fruit is thus easy to get at, and ladies can come in and gather it. The best fruit is produced on the cordons."

In the old kitchen garden the principal path is bordered with espalier Pears, all bearing crops of clean, marketable fruit. As we went along, Mr. Peters made running comments on the varieties.

"This is Souvenir de Congrès, and has given a crop of two and a half bushels. Winter Nelis does not do well on this soil. Louise Bonne of Jersey is a nice Pear, and shows good colour, but it does not keep. Seckle has a lovely flavour, but does better on the wall. It is in season in October and November, but goes off quickly." Then, pointing to a standard of Jargonelle, he continued: "This was crowded with fruit, but, strange to say, the birds gave us no trouble this year. Usually they are a great nuisance, especially blackbirds, and take a heavy toll. But it is a splendid Pear year."

In this section of the garden there used to be five Peach houses (two early and three late) and a Fig house, but three of these have been pulled down, and on the site Tomatoes and other vegetables are growing. Speaking of the Tomatoes, Mr. Peters pointed to the first batch, and said:

### PROFITABLE TOMATOES.

"This is Veale's Leader, a very good variety for growing outdoors. It gives huge crops of fruit of a nice, marketable size, and of the Sunrise type. They come rather smaller in the houses." (I counted several trusses, and found them carrying from ten to twelve fruits each). "The other variety is Hillside Comet, also a good bearer, and a nice sized fruit. I have put pit-lights in front of all these plants to hasten their ripening off, and if the weather gets cold I shall run a length of netting over the top. The Dwarf Bean in the border is Wythes' Early Gem. It has coloured pods, but is an enormous cropper, and I am growing them for drying, as they are excellent as dried Beans."

"You have a lot of Tomatoes under glass," I remarked, as we entered one of the houses.

"This is one of the four houses of the Vine range," was the answer, "and formerly had Muscat of Alexandria, Lady Downe's, Gros Maroc, Foster's Seedling, and Black Hamburgh. But I received orders to saw them down, and I have now filled the house with Tomatoes."

"What varieties are you growing under glass?"

"I have several; but I think Kondine Red is the most profitable for me, as it gives a bigger fruit, that is preferred for market. Ailsa Craig, when well grown, gives very good fruit, but when grown under ordinary market-grower's conditions it has too many small ones, which do not pay. Kondine Red fruits close to the ground, and is shorter-jointed. I have a lot of Bide's Recruit, another fine variety; but this, again, wants well growing or it gets small."

"Did you use heat in these houses?"

"No; what with the cost of fuel and the labour of stoking, it did not pay to use heat."

"And did you destroy the Vines in all the houses?" I asked.

"Fortunately, I was able to cut them down without actually destroying them, so that it will not be difficult later on to bring them up to requirements—in fact, I have been able to get quite a number of bunches of Grapes this season. Of course, I had to do all the work myself, and one way and another am kept busy from dawn till dusk, including Sundays."

The plants in the two Cucumber houses, which we next visited, were still carrying fruits, the varieties being Edney's Market Champion and Chennell's Challenger. They have borne heavily, Chennell's Challenger especially so, and have had no heat, not even a hotbed, the soil being a mixture of loam and manure.

Thence we made our way to the Peach houses, in the first of which Tomatoes were growing on the walls.

"I shall turn out the Peaches next year," said Mr. Peters, "and fill the house with Tomatoes, as they pay better. The Peach is Marquis of Downshire, a variety that is not well known, though it deserves to be. It is a free cropper and setter, colours well, and carries large fruit, and I have had as much as a shilling each for them. But there is a great deal of labour required in thinning, tying, and other things. Owing to the unsettled state of affairs last season the Peaches had no water for seven months, and were altogether neglected, so that I thought of cutting them down."

In the next Peach house, Bellegarde, with a spread of two hundred and thirty feet, has given five hundred and sixty fruits. Picking started on August 26th, and finished September 13th.

In the bothy every room was spread with Onions, laid out on the floor to dry, and it was apparent that this had been Mr. Peters' chief stand-by amongst vegetables. The front room contained many choice Apples, and I was interested in the fruit trays—an original idea of Mr. Peters——which have collapsible uprights, which allow for ample ventilation when the trays are full of fruit, but can be packed into a third of the space when empty.

Many other interesting details were also shown to me, but from what is here recorded it will be clear that Mr. Peters is doing his best to carry on, and has helped to solve the problem of food production.

W. J. CHITTENDEN.

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Next week: The gardens at Dropmore, Woburn Green, Maidenhead.

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FIG. 21.—MR. A. PETTIGREW.

Still, there can be no doubt whatever that it is preferable to sow sufficiently late, so that the plants do not remain too long in the seed-bed. There should be no rest or wait between the time the plants are above the soil and of planting. The best Broccolis I have seen are those given field culture, and treated as advised, that is an ample seed-bed, early planting before the plants are weakened by overcrowding, and after the planting there is no coddling, that is, the plants are thoroughly exposed and make a sturdier growth than in rich garden soil. As regards sowing a certain date cannot be given to suit all parts of the country. In the South the early Broccoli is one of the best paying crops grown, and, though my note refers more to the value of the late supplies, I would add the early spring varieties are equally valuable.

It will be found in such seasons as this that if the late Broccolis are earlier than usual, other green crops, such as the Borecoles, will be soon over. This will result in scarcity for a short time, but it is a simple matter to keep the small late heads of Broccoli later by lifting and laying in under a north wall and screening from bright sunshine. Treated thus, quite a fortnight's time as regards the supply will be secured.

There is no gain whatever in sowing late, as the plants do not pay. They must have a fair season's growth, and when sown too late the result is disappointing. Of course, much may be done to keep up a full supply by sowing late varieties, but these cannot always be trusted. This year we are cutting June Monarch early in April, but there are some compensations, as when the Broccoli is erratic the spring Cabbage is much earlier. This is a great gain, as if one fails the other comes in to take its place.

Another point the grower should always bear in mind is that no plant can stand extremes of heat and cold, rain, and snow if not strong and well-rooted. It is the weak ones that fall out, and it is well to get a good plant to stand our variable winters.

I have referred to soil and position. With regard to the former I have always got the best supplies from a deeply-dug or holding soil. This results in a more solid growth, and, given free exposure, there are fewer losses. In many gardens the Broccoli crop cannot get much attention, and even with the best culture there are great losses in severe winters. I have found fewer plants die when grown on as advised. Our soil is very light, but we get a hard root-run by planting on land from which the early or first Strawberries have just been cleared. For the latter crop the soil is trenched, well manured, and the early plants only occupy one season, as our object is fine fruit. The Strawberries are hoed off and the Broccoli placed in position: they are planted between the rows, the land being very hard and trodden. Of course, to do this good plants is necessary, and this is easily managed by pricking out the seedlings if the season is late.

Our best late Broccolis are not numerous, and I will only refer to those I have grown for some time, and these, in my opinion, are far superior to the huge heads grown a quarter of a century ago. For home supplies—that is, the private garden—two varieties should be grown in all gardens where delicate, medium-sized heads are required for use from April to June. Veitch's Model is one of the best introductions of late years, and very little inferior to the best Cauliflowers: it is very hardy, of fine texture, beautifully white, and well protected with its folding foliage. This variety is very distinct, the heads being conical, remarkably close and compact, and of splendid flavour. We usually have this variety on three quarters to get a long supply, and in severe seasons the plants on a north border escaped when those on a warmer one were killed.

Another very fine late Broccoli is Sutton's Late Queen. It is as valuable as Model, and one of the hardiest sorts grown. I have had it at midsummer in the northern part of the kingdom; indeed, it never failed, as it is a dwarf grower and a splendid garden variety. Another very late variety, also hardy, is Carter's Champion, which is a very fine Broccoli. June Monarch is also good, very late, and hardy. A favourite Broccoli in Scotland and the North is Methven's; it gives a close, compact head, and is a well-flavoured variety. The old Cattell's Eclipse is also hardy, but many do not like its sulphur colour. It is still a favourite for field culture. G. Wythes.

## OBITUARY.

### ANDREW PETTIGREW.

It is with deep regret that we announce the death of Mr. Andrew Pettigrew, of Cardiff Castle Gardens, which took place on Sunday morning last, April 26. Mr. Pettigrew, who was seventy years of age, had been seriously ill for some weeks. By his death we lose one of the most notable of British gardeners. Mr. Pettigrew was known throughout the kingdom as an expert horticulturist, more particularly as a fruit grower, and

THE LATE MR. ANDREW PETTIGREW.

was greatly respected wherever known. His face will be missed by many at horticultural gatherings.

Even those who did not know him personally will hear with great regret of his death, for Andrew Pettigrew was a household word in gardening circles, while those who had the pleasure of close acquaintance with him will remember him as an honourable, just yet generous and warm-hearted man, and a typical Scottish gardener.

Mr. Pettigrew commenced work in an Ayrshire garden at the early age of twelve, and subsequently worked in the following gardens for periods varying from nine months to two years: Craigie House (Ayr), Dalblair House (Ayr), Rozelle House (Ayr), Sheffield Botanic Gardens, Minard Castle, Drumlanrig Castle, Stoke Farm, Daylesford House, and Rollinson's Nurseries, Tooting. At the age of twenty-nine Mr. Pettigrew was appointed head gardener to the late C. Meeking, Esq., Richings Park, Bucks, and remained there for six years. Then, greatly against the wishes of his employer, he returned to Scotland to take charge of the late Marquis of Bute's gardens at Dumfries House, Ayrshire. After six years' service there Mr. Pettigrew, at the request of the Marquis, went to South Wales to lay out the gardens around Cardiff Castle.

Subsequently Mr. Pettigrew formed the famous vineyards and successfully conducted experiments in wine making after spending some time in visiting vineyards in France and studying the methods of wine making there. Mr. Pettigrew had been in the service of the Bute family for thirty-six years. The pot Vines and Melons, as well as the specimen Apple and Pear trees in the gardens of Cardiff Castle, we have rarely, if ever, seen equalled, and Mr. Pettigrew was justly proud of them. He was a thorough gardener, and took delight in excelling in his profession.

Several eminent gardeners of to-day have spent some time in the Cardiff Castle Gardens under Mr. Pettigrew, and it is not too much to say that in a large degree they owe their present success to the knowledge gained under his thorough tuition. Mr. Pettigrew was a Fellow of the Royal Horticultural Society, before which he has lectured on several occasions. He was a valued contributor to our columns. Great sympathy will be felt with Mrs. Pettigrew, her three sons and daughter in their bereavement.

### JAMES W. WITHERS.

Mr. Withers, of the *American Gardening* Publishing Company, New York, died on April 13 in Jamaica, West Indies, whither he had gone in hopes of recuperating his health.

Mr. Withers was born in Welshpool, Montgomeryshire, England, forty-two years ago. Going to America in 1892, Mr. Withers entered the employment of the Oasis Nursery Company. In 1894 he joined the staff of the *Florists' Exchange*. In October, 1898, he purchased *American Gardening*. During his stay in the United States the deceased did some excellent work in the cause of horticulture. He took a keen interest in exhibitions, and did everything in his power to encourage them. He was an active worker in various horticultural organisations. In the untimely death of Mr. Withers horticulture has surely lost a valued exponent and true friend. —*The Florists' Exchange.*

## THE LATE MR. BARRON, V.M.H.

Your pages are always open to those who advocate the claims of our gardening charities or who work in their behalf. Our good friend and worthy horticulturist, Mr. A. F. Barron, will be remembered as one who did much for the widow and orphan. Few were his equals with regard to fruit, especially hardy fruit culture. As a judge of fruits it was a pleasure for anyone to be associated with him. There is no occasion to point out the late Mr. Barron's qualities. These were testified to when he resigned the position as superintendent of the Royal Horticultural Society's gardens by the testimonial of £500 presented to him on that occasion. We all regret the loss of such men, and sympathise with those he has left behind. G. Wythes.

### Mr. A. F. Barron's Book of the Vine.

The late Mr. A. F. Barron undoubtedly possessed a wide knowledge of fruits, and a good deal of that knowledge may be found incorporated in the "Fruit Manual" and other books to which he was a contributor but not the author. He left behind, however, one book at least that is a standard authority, viz., his "Book of the Vine." It is without doubt the best and most authoritative work on the subject that has ever been issued from the press, and has the merit of being not merely fully but most truthfully illustrated. Mr. Barron had a very matter-of-fact mind, and he carried that fact thoroughly into his book. For that reason it is found on all gardeners' book-shelves, and is the work of reference when Vines are in question. It is not a big book by any means, but it is one that will live long after many other books have been forgotten.

It is very difficult indeed to keep books on gardening up to date, the progress made being so rapid, but the Vine progresses very slowly; indeed, the varieties held in the highest esteem twenty years ago or much longer are still the best varieties of to-day, and, judging by the rate with which new varieties of Grapes are introduced that make reputations, it is just possible that a century may elapse ere we shall see Black Hamburgh, Madresfield Court, Muscat of Alexandria, Mrs. Pince, Black Muscat, Gros Colman, Black Alicante, Lady Downe's, and Foster's Seedling displaced.

Of the several varieties that have received awards or been put into commerce during the past ten years hardly one has yet made any reputation. Something may be due to the fact that Vines can only do so very slowly. It is this fact that lends such value to the late Mr. Barron's book, and must for many years yet to come make it the standard work on the Vine in British horticulture. A. D.

# BOOKS.

**The Chrysanthemum: History, Classification, Description, and Culture.**—This in plain English is the title of a new book that has just been published in the Italian language by a Mr. Dario Formilli of Rome. It is a pretty book, and, judging by its bulk, it is likely to prove to be a very useful one. It is the first book that has ever been written in Italian on the subject of the Chrysanthemum, and for style and comprehensiveness is an example to be imitated. We cannot compare it with any other book that we know of or with which our readers are familiar, but if we did we should be inclined to say that it was a happy blending of styles analogous to "Le Chrysanthème, by Anatole Cordonnier, and the Chrysanthemum Album published by Sautel, whose coloured engravings are vividly recalled to our memory by those in Mr. Formilli's book. The author certainly deals with his subject in a very liberal manner, and seems to have spared no expense in producing a useful and, at the same time, well-executed cultural and historical manual. History, the various types with illustrations in black and white, literature, culture for all the many purposes to which the Chrysanthemum is put are freely and ably dealt with. Various composts, formulæ for liquid manures and mixtures to combat the rust, &c., are also supplied. Then there are lists of the best varieties for all kinds of purposes, besides much other literary matter, which we cannot even briefly review. The book is a substantial volume, well printed, freely illustrated, and one that we hope will materially help to extend the culture of the Chrysanthemum in Italy and to add to the dignity and well-being of the Italian National Chrysanthemum Society, after whose late president, Mr. A. Scalarandis, the variety forming the coloured frontispiece is named.

# SOCIETIES.

## CROYDON HORTICULTURAL SOCIETY.

THIS society has every reason to be pleased with its third annual exhibition of spring flowers and plants, which was held recently in the Art Galleries, Park Lane, Croydon. The objects of the society are not for the purpose of enabling its members to obtain monetary and other rewards for the particular branch of horticulture in which they may be engaged or take up as a hobby, but to create and encourage a love of horticulture amongst the masses, and this is certainly brought about by exhibitions such as this. Purely for the love of horticulture professional and amateur gardeners enter into friendly rivalry, and certainly with the result that year by year one sees an advance on the exhibitions of previous years. There were on this occasion more entrie than previously, and the quality throughout was of a higher standard. The exhibition consisted of collections of plants and Ferns, which were grouped round the wal and in the centre of the room. Amongst some of the most prominent groups visitors could not fail to be struck by those of Mr. M. E. Mills, gardener to Mr. F. Lloyd, of Coombe House, who had a collection of herbaceous plants, including some fine specimens of the Narcissus Emperor and Empress blooms, and also showed a splendid collection of Primula obconica. Mr. J. Dingwall, gardener to Mr. F. Stanley, J.P., of Cumberlow, South Norwood, in a tastefully-arranged group of flowers and plants, exhibited a splendid specimen of Amaryllis. Mr. A. May, gardener to Mr. Wickham Noakes, of Selsdon Park, had a collection of Cinerarias of delicate tints and shades, and other collections of flowers, Ferns, &c., were sent by Mr. F. Oxtoby, gardener to Mr. J. J. Reid, of Coombe Lodge; Mr. E. Perrett, gardener to Mrs. Fuller, of Hollywood, Duppas Hill; Mr. W. Bentley, gardener to Mr. George Curling, of Elgin House, Addiscombe; and Mr. J. R. Ball, gardener to Mr. A. D. Klaber, of Norhyrst, South Norwood, who also showed some forced French beans. Amongst the nurserymen Mr. Butcher, of South Norwood, in the centre of the gallery grouped a first-rate collection of Palms, plants, Ferns, &c., the effect of which was much enhanced by the magnificent bouquets of Roses Gloire de Dijon and La France, which occupied prominent positions at each end of the group. Messrs. J. R. Box and Co. of Derby Road, Croydon, had some excellent spring flowers, including the finest variety of the Barri section, Dorothy E. Wemyss; also an interesting collection of alpine plants, showing how these can be utilised in Japanese art pots for table decorations. Messrs. J. Peed and Sons, of West Norwood, had a similar exhibition of alpine plants. A feature of the show was the group of Orchids sent by Mr. E. Kromer, of Bandon Hill.

## MIDLAND DAFFODIL SHOW.

### NEW DAFFODILS AT BIRMINGHAM.

As the exhibition of the above society at Birmingham is regarded as the leading competitive display of the flower in the kingdom, it is not to be wondered at that new varieties find their way there from all parts. The judges and the leading experts present form a floral committee and act precisely in the same manner as the Daffodil committee at the Drill Hall. A large number of novelties were staged by the Rev. G. H. Engleheart, Miss Willmott, Messrs. Barr and Sons, Messrs. de Graaff and Son, and others, and the following varieties obtained awards of merit. No first-class certificate was granted, the Daffodil experts apparently holding the opinion that unless their allocation is challenged by something most distinctly novel it is best to make awards of merit in the first instance, leaving it open to make the higher award of a first-class certificate later on.

The Rev. G. H. Engleheart was, as usual, in strong force, and he obtained awards of merit for the following:—

*Strongbow.*—Of the character of Nelsoni, having a broad, white, overlapping perianth, and a long, clear yellow and somewhat spreading cup.

*Laureate.*—A very large form of the Poeticus type, white, with a large flat cup like that of Poetarum.

*Salmonea.*—A rather small and star-shaped Burbidgei, perianth white, with a delicate orange cup, paler on the edge, almost to white.

*White Ensign.*—Another Burbidgei, having a broad, pure white overlapping perianth and large flat yellow cup slightly stained on the edge.

*Broadwing.*—Somewhat of the same character; large pure white perianth, and a large and somewhat flat yellow cup margined with light orange. It was stated that the whole of the stock of this was disposed of on the day the award was made.

*Castille.*—A large Barrii type, soft lemon, star-shaped perianth, with a medium-sized spreading cup of bright orange.

*Hyacinth.*—One of the flat crowned varieties Mr. Engleheart has produced, the perianth pure white, the flat cup clear lemon-yellow; a rather small-sized variety with a distinct perfume.

Miss Willmott obtained awards of merit for

*Lemon Queen.*—An incomparabilis type having a large soft yellow perianth and spreading cup of a darker yellow, but smaller in proportion to the perianth.

*Red Charles Digby.*—A Johnstoni bicolor, with small white open perianth and large soft yellow trumpet.

*Cecil Rhodes.*—Also of the Johnstoni type, in colour pale lemon yellow, having a flat open perianth and long straight trumpet.

*Corydon.*—One of the Backhousei type, having a creamy overlapping perianth and soft yellow spreading cup of the Sir Watkin type.

*Ducat.*—A medium-sized well-formed trumpet variety, like an undersized but refined Golden Spur.

*Moonray.*—A hybrid of triandrus, having a pure white expanded cup and perianth, somewhat in the way of Moonstone, but the perianth is more open and the cup not quite so bold.

Messrs. Pope and Son received an award of merit for

*King's Norton*, which might be described as a giant Emperor, the trumpet large and rather bolder than in the case of King Alfred, but with scarcely so solid a perianth, which is of a primrose-yellow shade.

Messrs. Barr and Sons obtained awards of merit for

*Cleopatra.*—A large yellow trumpet variety, having a broad flat overlapping perianth, and may be best described as a refined Glory of Leiden.

*Cygnet.*—A bicolor, the white perianth inclined to curl and twist inwards; soft yellow trumpet somewhat open at the mouth.

*Loveliness.*—Broad overlapping perianth and pure white trumpet, rather long; an enlarged Mme. de Graaf.

*Mrs. George Barr.*—Another white trumpet in the way of Loveliness, and may be said to be intermediate between it and Mrs. Robert Sydenham, described below.

Messrs. de Graaff and Sons, Leiden, secured awards of merit for

*Mrs. Robert Sydenham.*—In the way of Messrs. Barr and Sons' Loveliness, but with a rather longer and more open trumpet.

*Francesca.*—Broad white overlapping segments of the perianth, and short but fine open trumpet; one of the best of the new varieties shown.

*Odorus Rugulosus maximus.*—A very fine form of the type, but of a rich deep yellow tint, and though one flower only was produced on a stem it is thought it may run to two.

*Apricot Phœnix.*—A fine double form in the way of Primrose Phœnix, but flushed with deep apricot at the base.

The Rev. G. H. Engleheart had among his new varieties a single flower of prodigious size, the perianth of which measured 5 inches in diameter, and the trumpet nearly 3 inches in depth; it is of the Emperor type, and is to be known under the name of Royal. R. D.

A GROUP OF DAFFODIL ENTHUSIASTS AT THE MIDLAND DAFFODIL SOCIETY'S SHOW.

*Standing (reading from left to right): Mr. W. B. Latham, Mr. John Pope, Mr. Herbert Smith (hon. secretary), Mr. R. C. Cartwright, Mr. Robert Sydenham (treasurer), and Mr. E. M. Crosfield. Sitting: Mr. P. Rudolph Barr, the Rev. G. H. Engleheart, and the Rev. S. E. Bourne.*

Mrs. EDMUND BARNES, Ashgate House (gr., Mr. J. Adlington), showed cut flowers of Narcissus and blue Cineraria stellata, which had a pleasing effect.

Messrs. J. R. PEARSON & SONS, of Lowdham, Notts, made an imposing display of Narcissi, staging 150 bunches of well-grown, clean blooms, in about sixty varieties, Weardale Perfection, Lulworth, Madame de Graaff, Gloria Mundi, and Albatross being in fine condition. The society's Certificate of Merit was awarded this exhibit.

Messrs. R. W. PROCTOR & SONS, Chesterfield, showed floral designs, and a collection of Pansies. Mr. J. H. WILSON, Handsworth, Sheffield, showed G. F. Wilson and other Primroses, and likewise Auriculas.

The ex-Mayor, Councillor SPOONER, exhibited eight pots of Royal Sovereign Strawberry. Mr. A. SHENTALL, of Gluman Gate, again contributed a quantity of flowers for sale at the stall, which was managed by gardeners' wives and daughters. *W. P.*

## HEREFORD & WEST OF ENGLAND ROSE.

APRIL 24.—The annual meeting of the Hereford and West of England Rose Society was held at Hereford on this date, the Rev. C. H. Bulmer presiding. The financial statement showed that the income of the past year amounted to £223 5*s*. 5*d*., and after deducting expenditure (the principal item of which was £102 13*s*. 10*d*. for prizes) there remained a balance of £41 13*s*. 10*d*. Mr. T. Carver said the subscriptions amounted to £7 more than in the previous year, and the gate-money to £18 more. The chairman said he thought such a financial statement was highly satisfactory, and they ought to be very grateful to their Hon. Secretary (the Rev. Preb. Ashley). A Committee of Management was elected, with Hon. Secretary, Rev. Preb. G. E. Ashley, Stretton Rectory, Hereford; Hon. Assistant Secretary, Mr. T. Carver, Hereford; Hon. Treasurer, Mr. A. C. Harmer, Hereford; Hon. Manager of Exhibition, Mr. H. C. Beddoe, Hereford; Hon. Assistant Manager of Exhibition, Mr. G. Holloway, Hereford.

## Obituary.

ANDREW PETTIGREW.—Another famous gardener has fallen from the ranks; in this case, a victim to that insidious and hopeless disease, cancer. Mr. Pettigrew, gardener to the Marquis of Bute, at Cardiff Castle, would have been seventy years of age had he lived until August 12 next, and his appearance a few months ago seemed to warrant the belief that he would be able to discharge his important duties for some years to come. About three months since he was overtaken by illness, and as the weeks passed he became weaker, until it was painfully obvious that the disease was a fatal one, and that hopes of his restoration to health were futile. The end came at 5 o'clock on Sunday morning, April 26, after deceased had lain twelve weeks in bed, during most of which time he was happily comparatively free from severe pain.

Andrew Pettigrew commenced his gardening career at Craigie House, Ayrshire, fifty-eight years ago, when twelve years of age. At fifteen, he removed to Dalblain House, in the same county, and served an apprenticeship of three years, after which he served at Rozelle House until reaching the age of twenty. Leaving Rozelle, the young man spent a few months in the Botanic Gardens, Sheffield, then a period at Minard Castle, and subsequently a year at Drumlanrig, under the late Mr. McIntosh. The probation at Drumlanrig was followed by a period at Stoke Farm, and at Daylesford House, Worcestershire, in the capacity of foreman.

After serving a time at Rollisson's Nursery, Mr. Pettigrew was appointed head gardener to the late Charles Meekin, at Richings Park, Buckinghamshire, where he remained for six years, and was a frequent correspondent of this journal. At this time deceased entered the service of the late Lord Bute at Dumfries House, Ayrshire, and after serving there for six years, at the earnest request of his lordship, he again removed south to take charge of Lord Bute's more important garden at Cardiff Castle, where he remained for thirty years. Encouraged by his lordship, Mr. Pettigrew soon commenced to remodel the kitchen gardens, and converted a large area of waste and scrubby land around the Castle into a beautiful pleasure-ground.

Mr. Pettigrew was an enthusiastic fruit-grower, and those who have seen his hardy fruit trees, Melons, and pot Vines, will not forget them. The pyramidal Pear-trees at Cardiff were among the most perfect specimens in these Islands. The value and quality of Foster's Seedling Grape as an early variety were nowhere better demonstrated than in the vineries at Cardiff.

One of the principal enterprises carried out by Mr. Pettigrew at Cardiff, at the request of the late Lord Bute, was that of planting two vineyards, one at Castle Coch, commenced about twenty-seven years ago, and another at Swanbridge a few years later, on a slope several hundred yards distant from the sea. From the

THE LATE ANDREW PETTIGREW,
Gardener to the Marquis of Bute

produce of these vineyards the deceased gardener manufactured a wine that is now on the market, samples of which have been sold at so high a price as 115*s*. per dozen bottles. The first wine was made in 1877, and amounted to forty gallons; but in 1893, an exceptionally good season, and following extensive planting, as much as forty hogsheads of excellent wine were manufactured. An account of this wine industry will be found in *Gardeners' Chronicle*, Sept. 15, 1894, in the shape of a report of a lecture delivered upon the subject by Mr. Pettigrew before the Royal Horticultural Society on the previous Tuesday. A detailed description of the gardens at Cardiff Castle, and of the cultivation practised in the vineyards, was published in *Gardeners' Chronicle* for September 9, 1893.

Latterly, owing to the purchase of Cathays Park by the municipal authorities, most of the kitchen gardens laid out by Mr. Pettigrew have been destroyed, and arrangements were to be made for forming new ones.

Until late years, deceased took a deep interest in the welfare of the young men who came under his influence, helping them in drawing plans, and in the study of botany. When a boy in his teens he began to learn British plants by means of the old Linnean system, and gathered together a fine collection of specimens from many parts of the country.

Mr. Pettigrew was very fond of reading, and greatly admired the works of Sir Walter Scott and Robert Burns. He was elected President of the Cardiff Burns Society last Christmas. His favourite recreation was the old Scottish game of bowls, and he founded at Cardiff a society that has just spent a sum of £300 in the improvement of its grounds.

Deceased was a gardener of the old school, who was above all else a good kitchen gardener and fruit grower, and considered that these two departments should receive more attention by young men than is now common. He was a strict disciplinarian, and many a man now holding an important position is the better for his teaching in punctuality and thrift. Gardening was not merely his calling, but he lived it and thought it continually. All who had the fortune to know him personally, and especially the large number of young men, including the present writer, who learnt some of their lessons in his school, will deeply regret that his life has been shortened by disease. They will also feel profound sympathy for Mrs. Pettigrew, for all participated in her overflowing kindness.

It may be recalled with pathetic interest that Andrew Pettigrew's last communication to these pages was one which recorded in touching words the death of his friend, Ralph Crossling, of Penarth.

Deceased leaves a widow, one daughter, and three sons. The sons are William Wallace, Superintendent of the Parks and Open Spaces under the Cardiff County Council; Hugh, head gardener to Lord Windsor, at St. Fagan's Castle, Glamorganshire; and Andrew, head gardener to the same nobleman at Hewell Grange, Worcestershire. Each received training at Kew. *R. Hooper Pearson.*

CHARLES DARRAH.—It is with much regret that we announce the death of Mr. Charles Darrah, which took place at his residence, Holly Point, Heaton Mersey, Manchester, last Friday evening. Mr. Darrah was known to the horticultural world as the possessor of a large collection of Cacti, plants in which he was greatly interested. Particulars of the "Holly Point" collection have at times appeared in the pages of the *Gardeners' Chronicle*, as well as photographs of some of the specimens.

## ENQUIRY.

CAN anyone tell me to what flower Browning refers in "May and Death?":—

"Only one little sight, one plant,
Woods have in May, that starts up green
Save a sole streak, which, so to speak,
Is spring's blood, spilt its leaves between."

*W. T.*

## TRADE NOTICE.

MR. ELLIS, head gardener to Mr. Stobart, J.P., for the last twenty-two years, has recently left that service to commence business together with his two sons as Florists, &c., at the Castle Gardens, Bishop Auckland, Durham.

OLD BOOTS IN VINE BORDERS.—I was asked to examine some old Vines recently, and found in the border many old boots and shoes. They had apparently been buried under the idea that they were of manurial value. Most of us have heard of the folly of burying carcases of animals in Vine borders, but I was not previously aware that their hides had been used for the purpose after being tanned and made into boots. *T. Coomber, Hendre Gardens, Monmouth.*

pear in time, but they sometimes multiply and form colonies, either by means of offsets, or as the result of injury to the bulbs. In former days, no doubt, the latter effect would have been attributed to a desperate effort on the part of the plants to perpetuate their species before they died. As a matter of fact, it is merely the natural result of a natural cause. A true bulb, such as that of the Hyacinth, consists of a thickened underground stem, surrounded by fleshy leaves called scales. In the axils of these leaves there are buds, just as there are in the axils of leaves above ground. Generally, so long as the stem is uninjured, they remain dormant, for it is in the direct line of the sap current, which follows the easiest channel and therefore passes them by; but if its tip is destroyed, the sap has to seek other outlets, and forces some of the dormant buds to grow. In other words, instead of a single bulb, we get a number of smaller ones, at first joined together, but afterwards, as the connecting tissues decay, breaking apart. This fact is taken advantage of by the Dutch growers when they wish to propagate a new and valuable variety. They scoop out the centre of the bulb—that is, destroy the growing tip of the stem buried inside the fleshy leaves—and thus obtain many small bulbs, which, when they die down, are lifted and planted separately.

MR. PHILLIPS.

**The Cheapest Way to Renovate a Lawn.**

May 21st.—Three or four years ago, when I came here, the lawn was full of daisies. They were thickly peppered all over it, and in many places there were great patches of them, with scarcely a blade of grass among them. There were also many plantains. Now there is not a daisy or a plantain to be seen. I destroyed most of them by means of sulphate of ammonia, and cut out with a knife those that survived. Yet sometimes the doubt arises as to whether the time and labour might not have been better spent. Though the daisies and plantains are gone, there are still plenty of weeds—small, creeping weeds, which spread rapidly. For them, sulphate of ammonia is useless. It does not adhere to their little leaves any more than it does to the grass. Really, to renovate a very bad lawn there is only one way—to turn the surface and sow seed. It is the cheapest, and in the long run the quickest and most satisfactory.

May 22nd.—Although Dr. Mules is not (as described in catalogues) a dark violet-blue, for it certainly has a magenta shade, it is a very fine Aubrietia. The flowers are much larger than those of the type, and, as will be seen from the photograph, they are borne in such profusion that they quite hide the foliage. They also last for a long time, even in such dry weather as we have had this spring—another great advantage. H. C. DAVIDSON.

# The Gardens of Mr. Edward North Buxton.

INTERVIEW WITH MR. D. PHILLIPS, AT KNIGHTON, BUCKHURST HILL.

ONE of the great features of Knighton, the well-known seat of Mr. E. N. Buxton, who has just delighted cricketers by accepting the presidency of the Essex county club, is the woods adjoining the pleasure gardens. Here are naturalised millions of Daffodils and Narcissi, which later in the year are followed by a brilliant display of Rhododendrons and Azaleas. I had the pleasure, by the courtesy of Mr. Buxton, of seeing the former in the height of their glory on April 23rd. Practically, as I saw, when Mr. Phillips, the head gardener, who has charge of the whole of the estate, showed me round, the woods form a portion of the gardens, and from the terrace in front of the house many masses of golden blooms could be seen through the open spaces. But, before proceeding to the centre of their location, I asked Mr. Phillips some questions about the more immediate surroundings of the house.

"Roses, as you see, are a feature. Of Ramblers, there is one large bed consisting of Dorothy Perkins and Lady Jersey growing up Fir poles, with Gardenias trained over the base, covering the bed about two feet above the ground."

"How do you treat your Crimson Rambler hedge?"

"I cut most of the old flowering wood out, and tie very loosely the long young shoots, as a little support from winds, but allow all to hang naturally. We thus get the greater portion of the length of wood to flower in thick clusters. Other Roses on poles are Carmine Pillar, Claire Jacquier, Queen Alexandra, Leuchstern, Lady Gay, Euphrosyne, and sinica Anemone."

**The Terrace Bedding.**

"Then, there are the numerous beds on the south front, with the fine show of mauve Violas."

"They include two each of Caroline Testout, Leonie Lamesch, Betty, Madame Jules Grolez, Lady Battersea, Frau Karl Druschki, and Madame Abel Chatenay. The variety of Violas which carpets the beds is Maggie Mott. On the west front the Rose beds include a large one of Gruss an Teplitz (which is very lightly pruned, the long shoots being pegged down to cover the bed), the others being mixed."

"You have a splendid show of Azaleas in the conservatory. What is the name of the magnificent specimen with its blaze of scarlet flowers?"

"Roi de Hollande. I bought it as a small plant, and give it just ordinary treatment. When it has done flowering, I put it in a little heat, keep it well syringed while it is making its buds, put it outside from the beginning of August until the end of September to ripen the buds, and bring it into a cool house devoted to Azaleas for the winter. The smaller plants

KNIGHTON, BUCKHURST HILL.

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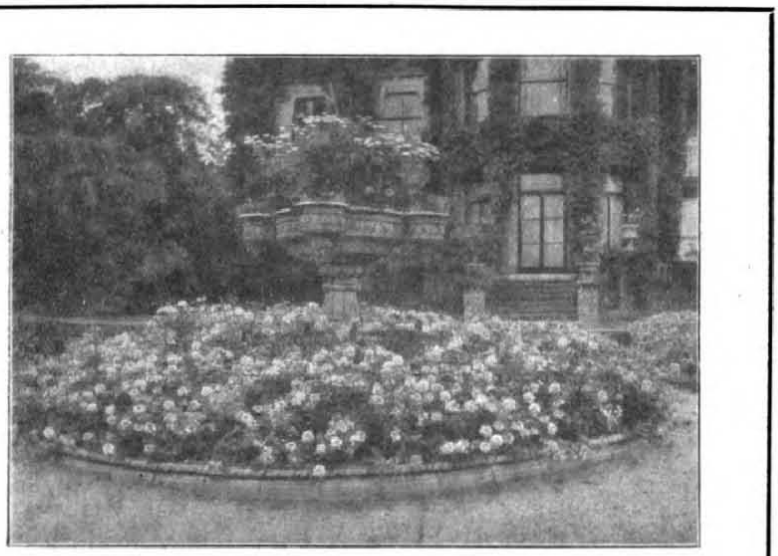
treated in the same way. Other plants in flower here include Amaryllis, Cineraria stellata, and Camellias, while on the roof are Cobæa scandens and Tacsonia van Volxemii. We keep the conservatory gay all through the year; there are no gaps."

"Are there many creepers on the house?"

"Only Ampelopsis Veitchii, Wistaria sinensis, and Banksian Roses, but outside the conservatory the Clematis montana, which grows up the balcony, is very ornamental."

"What are the principal trees on the very extensive lawns?"

"The most notable are a Tulip-tree, and a very fine Mulberry. The lawns extend into the woods. In the two long herbaceous borders, with their clusters of Daffodils, are clumps of Delphiniums, Lupins, Phlox, Iris, Oriental Poppies, Chrysanthemum maximum, Pinks (His Majesty), and Aubrietias in front, large spaces being left for annuals. The Antirrhinums are Sutton's Carmine Pink, Coral-red, Cloth of Gold, and Tom Thumb varieties. I strike cuttings of the tall kinds in the autumn; also of Pentstemons, with the result that they flower earlier the next season. Lavateras (pink Mallows) and Nigella Miss Jekyll are sown in



Centrepiece on South Front at Knighton, Buckhurst Hill.

masses where they flower. Nemesias, Snapdragons (Stock-flowered), and Salpiglossis (large-flowering) are sown in heat, pricked off and hardened off before putting out in masses. The two best yellow Violas grown in the borders are William Lockwood and Sunbeam."

### Begonias Gloire de Lorraine.

"Plant houses are not a feature at Knighton, but passing the herbaceous beds, with a hedge of Penzance Brier Roses on either side, and turning on our way several delightful flowering shrubs, especially the Wild Cherry, the double-flowering Thorn, a scarlet Maple, Snowy Mespilus, and Malus floribunda, we spent a little time in inspecting them.

"I graft a good many Roses," said Mr. Phillips, "for pot culture. Madame Abel Chatenay is largely grown for this purpose, and others include Killarney, Papa Gontier, Lady Ashton, Madame Lambard, Mrs. H. Brocklebank, and Madame Hoste. Begonias Gloire de Lorraine are rather a feature, and are used largely for room decoration."

"You have some very fine plants."

"One of the finest was put in the drawing-room in October, and remained there for three weeks. Then I brought it back into heat until the early spring, and now, as you can judge, it is ready to go in again. That is the course I pursue generally, keeping up a succession. This particular plant is two feet high, and three through."

### The Treatment of Amaryllis.

"Do you also make a feature of Chrysanthemums?"

"I grow about three hundred, and we like the singles the best."

"How do you treat Amaryllis?"

"My aim is to get the first in flower early in February, and by retarding the others I can keep up a succession for some months. These are all my own seedlings from a single packet of seeds. I have several plants with two spikes on. The chief secret of success is to keep on the dry side affording partial shading whilst making their growth, afterwards gradually ripen them off, when the bulbs should be baked by exposing them to full sunlight."

From the houses we proceeded to a pretty little rockery, containing many varieties. Adjacent are several trees which have had their tops sawn off, and Roses planted with charming effect; and in another direction is a border adorned by a fine piece of Forsythia suspensa, and planted in large clumps with Montbretias, Campanulas, Maurandya didyma, Lychnis, Chelone barbata, and Anchusa italica (Dropmore variety). Then, into the wild garden, which contains an Oak planted by the King when he was Prince of Wales, and a Maple planted by the Queen when she was Princess of Wales. Planted promiscuously are Delphiniums, Alstrœmerias, and Poppies, with other flowers in clumps. Near the woods is a long winding lake of an acre and a half, with an island in the centre, and it was soon after I had admired this stretch of water that I began to realise the beauty of the Narcissi naturalised in fifty acres of the Knighton woods.

### The Naturalisation of the Narcissus.

"At the most prominent and lowest end of the island which faces the house," said Mr. Phillips, "the old double Daffodils telamonious plena are planted. These run down near the water and round the sides of the lake. At some distance apart there are clumps of Horsfieldii, some of which have a background of Bamboos metake, about fourteen feet high. Then, there are other trees, such as the Silver Birch and the Weeping Willows. There are similar trees on the island itself, and thus there is no bare-looking ground to spoil the perspective."

"What are the varieties of Narcissus at the farthest end of the lake?"

"They are of the Barrii type, Glow, with smaller clumps of the old double Daffodil, and these open early, clumps of poeticus following later. I may explain here that the object throughout is to open up vistas from the lawns. Thus, commencing from the sunken fence, portions of the bank are clothed with Henry Irving (the big trumpet variety), and Horsfieldii. Throughout the system of planting in irregular clumps in grass is followed, and the plants are left in their permanent home undisturbed until they require thinning out. I think that amateurs, instead of cutting their gardens up into numerous beds and borders, would often derive more pleasure from them if they planted irregular small clumps. This applies especially to Narcissi and Daffodils."

### The Principal Varieties.

"You must have an enormous number of varieties represented in your beds, and, as we proceed, perhaps you would name some of them in the order of flowering."

"The earliest variety to flower is Narcissus minimus, growing by the side of paths in front of huge Hollies. Here are clumps, extremely showy, of Barrii conspicuus, Autocrat, Frank Miles, Duchess of Westminster, and Mrs. Langtry. Then there are beds of P. R. Barr, Sir Watkin, J. B. M. Camm, Emperor, Beauty, Flora Wilson, Leedsi, amabilis, John Bain, Golden Spur, obvallaris (the Tenby Daffodil), Stella, and Princess Mary. Further on, such varieties as Duchess de Brabant, Nelsonii, Orange Phœnix, Princeps, rugilobus, and Stella superba are represented. By the way, I must not forget to mention Queen of Spain, which is very charming. But I think I have named enough varieties. Of these, altogether we grow nearly fifty, and we keep adding to the number of beds every year."

"They certainly make a lovely sight, and are worth coming many miles to see. Perhaps you would now give me a few details of culture?"

### Points in Culture.

"It is of vital importance to trench the ground, and to see that the drainage is right. There are two kinds of soil in these woods—clay and stony. When I meet with clay, I plant either Autocrat, Frank Miles, Horsfieldii, or poeticus, adding some old mortar-rubble and a slight dressing of basic slag. To the stony soil I add wood ash and bonemeal, with some fresh loam, planting most of the white varieties, such as Mrs. Thomson, Minnie Hulme, Mrs. Langtry, and moschatus. I plant the strong Trumpet varieties not more than four inches deep, and six inches apart; the medium cup flowers three and a half inches deep and three inches apart; and the Leedsi type from two to three inches deep and three inches apart."

"When do you lift or procure bulbs for planting?"

"Almost everything depends upon that. I can lay no hard-and-fast rule down, but my experience is that the months of July and August cover the best time. The safest rule is to commence as soon as the foliage is about half ripened. At that stage the bulbs are quite dormant. When they are taken up, they should not be exposed to the sun, and I strongly advocate replanting them very quickly, with very little exposure to the air."

"Can you give any hints respecting the making of the beds upon grass?"

"The turf should be pared very thinly, so that when the bed is made and planted, it can be relaid if required. I dig the turf in with the soil, with the result that the surface becomes grassy again almost the first season. For the rest, I cover the beds with wire-netting, to prevent rabbits scratching them, and they will take care of themselves for at least three years.

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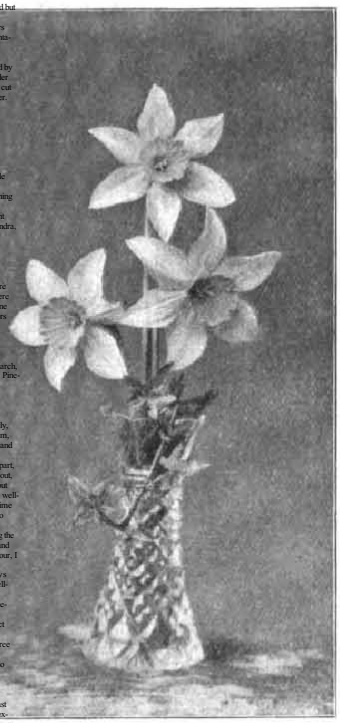
As to the arrangement for individual varieties, a bed of Emperor, because of its boldness, should always be planted in front of some dense foliage; the Queen of Spain in partial shade, but a more damp position; while Autocrat and Frank Miles (with its curly petals) give the greatest effect when they are somewhat surrounded by trees. Princeps, rugilobus, and some other varieties should be planted fully in the open, so that they can get thoroughly ripened."



"FRANK MILES."

## Narcissus from Seed.

"Do you raise Narcissus from seed?"

"Yes, and find it most interesting. Many sorts will seed freely, especially the big Trumpet varieties. I generally sow each sort separately in pans, as soon as the seeds are gathered in June. For the first twelve months they are kept in the pans, and then I plant in shallow drills in the kitchen garden. Then they go on increasing every year until, in the fourth or fifth year, they begin to flower. Of course, the effect of the Narcissi seedlings in the kitchen garden a year and two years old. When they reach their flowering size, I draft them to the woods."

## The Kitchen Garden.

Having explored the woods as far as time would permit, we entered the old-fashioned but considerable kitchen gardens. These are divided into two sections, and in one flowers are grown in the borders, both for ornamentation and for cutting.

"These," observed Mr. Phillips, "include many spring flowers, which are succeeded by herbaceous plants and annuals. In one border are four bushes of Rose L'Ideal, which we cut in the bud; it lasts exceedingly well in water. And, speaking of Roses, the Christmas Roses, which are on a north-east border, have been shifted twice, and now look thriving. I mulch them with a quantity of leaf-soil, and water with liquid manure through the summer."

"What is your system with Sweet Peas?"

"I plant them out, six inches apart, in double rows. They are sown thickly in boxes in February, and put out of doors at the beginning of April. I get plants six feet high, but only grow three or four colours; the predominant varieties being Bolton's Pink, Queen Alexandra, and Dorothy Eckford."

## Strawberries for Seven Weeks.

"Now, as to fruit, of which I see you grow large quantities?"

"Priority, I think, might be given to Strawberries, because, during the season, they are supplied for four meals during the day. There is no forcing, but we begin to pick St. Antoine de Padoue and Royal Sovereign out of doors under a Peach wall about June 11th, and go on until quite late in July. The other varieties are Fillbasket, Trafalgar, The Laxton, Givon's Late Prolific, and Latest of All. In the other section of the garden I grow Monarch, also the new varieties—Laxton's Epicure, Pineapple, Reward, The Bedford, and Bedford Champion."

"How long do you keep the plants?"

"Only two years, and I always change the ground the fourth year. I start layering early, in 'sixty' pots, with a compost made of loam, Mushroom manure, and a little bonemeal, and plant out during the first or second week in September. The plants are fifteen inches apart, and the second year I cut every other one out, which leaves them thirty inches apart. About the end of September, I surface with some well-rotted manure, which is well spent by the time the plants come into flower, just previous to which I rake about half off, leaving the remainder to act as a mulch for conserving the moisture. During the swelling of the fruit, and up to the time it commences to change colour, I water with liquid manure and soot-water. I never fork in between the rows, but I always double-dig the ground, adding plenty of well-rotted manure and a dressing of soot; and I select the first runner that appears from one-year-old and fruitful plants. But I attribute such success as I achieve chiefly to the fact that I plant Strawberries firmly, and after I have planted I tread them well in two or three times in succession. It is an amazing thing that people make the soil hard in pots, but do not take the trouble to do so out of doors."

## Currants at Christmas.

"I notice that you grow Plums in a cage."

"Yes, they are quite young trees, planted last autumn, with two Morello Cherries, as an experiment. The Plums are Jefferson's, Magnum Bonum, Kirke, The Czar, and New Orleans, and I think they will do very well."

"Where do you grow most of your Apples?"

"In the orchard just below, which also contains a few Pears. There is no grass round the trees. I opened the centre of the standards, getting the light into the centre, and now have fruit all up the branches."

"You have a large plantation of Currants?"

"Yes, and I can always depend upon a crop of both Red and White fruit. Several trees I cover over with mats, to keep dark, so that I am able to pick several dishes of Red Currants towards Christmas Day. Raspberries are grown on arches, planted four feet apart. Half of each clump is tied over to form the arch, and the other half the opposite way. Black Currants do well, probably because as soon as I see the mite I destroy the tree."

"Then there is the fruit on the walls."

"This year there is every prospect of a good crop of Apricots, though last year I scarcely had a fruit. That was no doubt because of the enormous crop in 1907, when I picked off bushels in thinning. We are troubled a little with canker, though not so much as formerly. With regard to Peaches on the wall, I am very particular in not laying in the shoots too thick. Indoors, our Peaches are Waterloo and Early Alexander. The other houses are Vineries, a late one containing Gros Colmar, Black Alicante, Mrs. Pince, Lady Downe's Seedling, Muscat, and Muscat Hamburgh. The last succeed fairly well. We let plenty of growth go on while it is colouring, and get a very fair colour by carrying a good amount of leafage. In the Hamburgh house the Vines are forty and fifty years old, and I am now renewing them."

## A Long Succession of Peas.

"You go in rather strongly for some kinds of vegetables?"

"We go in largely for Peas, picking about twenty-seven bushels. We begin the first week in June, and finish the last week in October."

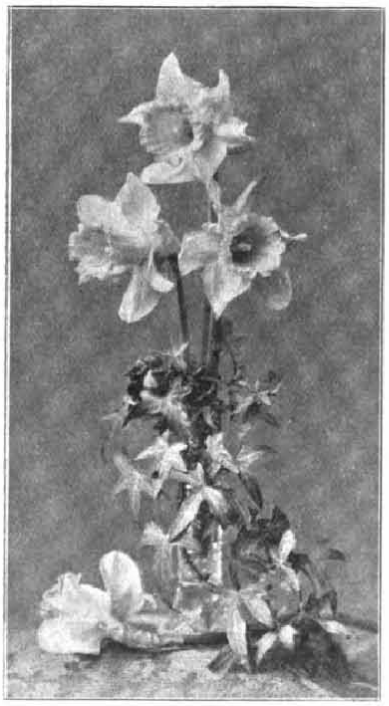
"When do you sow them?"

"The first-earlies are sown in the middle of January in narrow boxes four inches wide and six inches deep, with a false bottom tied on. They are put in the trenches the third week in March, the false bottom being taken out so as to let the Peas into the trenches. I always sow Peas after Celery. In cutting Celery down there is always a trench left, in which I place manure. I then level the Celery trench down, and sow seed where the manure has been, which gives a good depth of soil. The second-early Peas are sown as soon as the first are put out, and the remainder at intervals of a fortnight."

## The Cultivation of Celery.

"What about Celery?"

"We begin cutting about the middle of September, and finish on Easter Day. The seed is sown quite early in January. Owing to the kitchen



TRUMPET DAFFODIL—EMPEROR.

garden facing to the north-east, I am compelled to start earlier. As to the mode of culture, there are double rows in trenches, and, in order to get it late, I never earth up till quite the third week in October. About August, I cut down an inch or two of the sides, to cover the roots and to act as surface-dressing, and I water freely to keep the roots moist. The Celery trenches are already made, so that I can sow on the surface Kidney Beans, Radishes,

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and Lettuce. The varieties are Veitch's Early Rose, Dwarf Red, Superb White, Major Clarke, and Standard Bearer."

"Are you troubled with Celery-fly?"

"We are badly affected at times, but I keep it in check by using a small quantity of petroleum in the water, and spraying it finely three times a week. That is a more effective remedy than soot."

**Brussels Sprouts and Onions.**

"You seem to devote a good deal of space to Brussels Sprouts."

"They are sown quite early in boxes in January in a cool place. When large enough, I plant out in frames four inches apart, and in the second week in May I put them in the garden. The next batch I treat in the way usual with winter vegetables, and plant out later, to follow in summer. I am only growing Sutton's Early Gem. It stands the winter well, and gives beautiful firm sprouts all the way up the stem. In planting, I tread the ground, as I do in the case of Strawberries."

"What is your system with Onions?"

"I plant on the heaviest soil I can find, and in preparing the ground I tread it twice over, so as to keep a firm base, prior to draining the drills. I sow very lightly, about an inch deep, and after covering the seed I tread it again, finishing off with raking and rolling. The Onion season begins in August, and finishes at the end of April. We grow a few big bulbs of Ailsa Craig, sowing in a gentle heat in January, and, when large enough to handle, putting them in small pots. They are ready to put out as soon as the others in the open show through the beds. I cannot keep ordinary Spinach through the winter, but I find the Spinach Beet an excellent substitute. I sow at the beginning of May, and get crops sufficient to carry me through the summer."

**Mr. Phillips's Career.**

"Where did you commence your gardening experiences, Mr. Phillips?"

"At the age of fourteen I was apprenticed for five years in the gardens of the late Mr. R. Hanbury, at Poles, Herts. Then, in order to gain nursery experience, I spent two years in the soft wood and Orchid departments at Mr. Hugh Low's nursery in Upper Clapton. After that, I was at Digswell House for eighteen months; at Knowsley Hall for two years; and at Lockinge Park for two years. My first post as head gardener was at Canons Gardens, Herts, where I remained for two years; and I was next head gardener for nearly five years at Lindley Hall, Nuneaton. In 1898 I came here."

"I believe you have shown with considerable success?"

"Both in the Midlands and here. At Woodford I have done very well with Chrysanthemums and fruit. I have assisted in the formation of several horticultural mutual improvement societies, and read papers on botanical and practical subjects connected with the garden, being always glad to impart any knowledge I possess to amateurs and cottagers. I have also served on the executive and Floral Committees of the National Chrysanthemum Society. I should like to say that, owing to the kindness and liberality with which Mr. and Mrs. Buxton treat their employees on the estate, it is a real pleasure to be in their service."

Alfred Wilcox.

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A curious condition was attached to some allotments that were originally started by the late Archdeacon Bentinck in the Holderness district of Yorkshire more than half a century ago. He laid down that each of his tenants must cultivate the land with spade and fork, using no horse-power. This condition was enforced until the Archdeacon's death. The allotments are still industriously worked, but borrowed ploughs are used to supplement hand labour.

# Letters from a Lady Gardener.

No. 336.—THE TROUBLES OF A DRY SEASON.

DEAR KATE,—This seems to be a season of extremes. The most wintry of Marches has given way to the sunniest of Mays (yet with a distinctly cold wind), and everything is now suffering (May 16th) from want of water as though it were midsummer, for we have not had a drop of rain yet this month, and only showers in April. This is very trying to a garden with light, well-drained soil, especially so when in terraces, and I fear most of the early-sown annuals will fail, for they have not had time to get hold of the soil deeply. But as soon as rain comes we shall sow them again, for late-flowering annuals are really more useful in this garden in the autumn than in June, when all the perennials are in full glory, and the garden is sure to be brilliant.

**Sow Half-hardy Annuals Outdoors.**

Many delicate half-hardy annuals, which need warmth under glass to germinate in February, will do very well now in the open border, especially if they are covered at night with a seed-glass, a pan of glass raised on stones, or even a piece of brown paper, until all chance of frost is over. Salpiglossis, for instance (one of the most beautiful of annuals, in a great variety of rich tints), China Asters, Zinnias, dwarf Nasturtiums (of the lovely Crystal Palace tints), Mignonette, annual Gypsophilas, annual Chrysanthemums, Nemophila insignis (one of the purest blue flowers we have), Shirley Poppies, and many other annuals will all be found very useful to sow now in places where spring bulbs have been flowering and are now ripening their foliage, which would otherwise be bare of everything in the late summer.

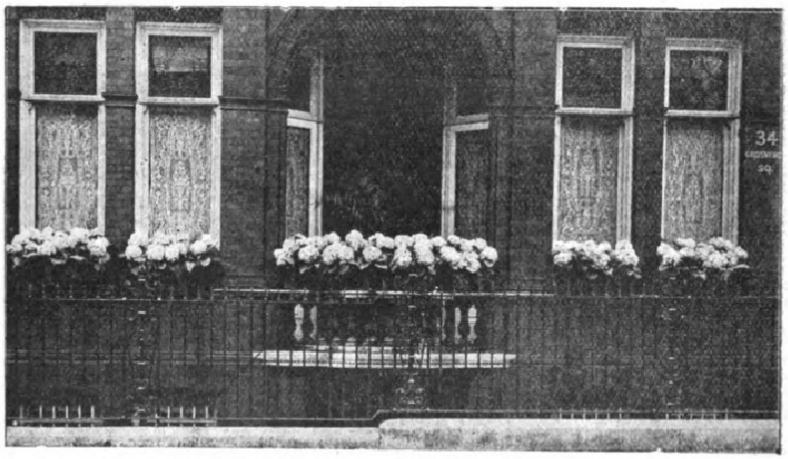
Before doing this, however, it is desirable to loosen the soil around the bulbs, and sift a little rich, fine soil over them, not necessarily however, covering all their foliage, which will soon shrivel away naturally, and must not be hurried in the process if you want flowers from the bulbs next year. A couple of inches of good, fresh soil will start the seedlings well, and also help the bulbs, and in this you can sow your seeds, just covering them with a light sprinkling, and making them firm in the soil by gentle patting down with the back of the trowel. Of course, you must take care that the seedlings are not destroyed by a drought if this sort of weather goes on; but the soil around them should be kept open, and water given abundantly when necessary.

Another set of plants which need special help in a dry season are the climbers, which often get but a short supply of water under the house (even when it rains), especially on the eastern side, for most of the rain in summer comes from the west. Fortunately, many of them, such as Ampelopsis quinquefolia, A. Veitchii, and the Japanese Honeysuckle (Lonicera brachypoda) make such long and strong roots that they manage to survive, even on a town house, and in the state of total neglect the poor things too often get; but Clematises are very different, and so are Roses, and the other climbers usually grown, for these will suffer sadly from blights and mildew, and you will get no autumn flowers on them if allowed to starve now.

**Care of Climbers.**

The best thing you can do for them is to fork up the soil to the depth of three inches for a yard or more from their stems (according to the size of the plant and its vigour), and draw back the surface soil with a rake. Then water the roots profusely with tepid water, and lay over them a mulch of old hotbed stuff, or any good, rich soil, half-decayed leaves, soot, etc., which you can get hold of, three inches deep; water this again, thoroughly, and sift a little soil over that, to keep all moist and comfortable. You may then feel quite happy about your climbers for some weeks, but in a long drought it will be well to give them then a second thorough watering, especially in a light, well-drained soil, always loosening the soil above their roots the following morning to the depth of three inches with a small fork, as this prevents too rapid evaporation.

This plan of supplying moisture to the roots of your plants may seem more troublesome than that of sprinkling the surface of the border every evening from a rosed can; but it is also far more effectual, as it really helps them greatly, whilst the usual sprinkle often does more harm



Window-boxes Filled with Hydrangeas.

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broiling summer of 1906 used to declare vehemently and repeatedly that "this is God's own country." I did not see him during those April snowstorms, but I have reason to believe he is not quite so sure about his identification.

**Large Plants for Small Gardens.**

May 7th.—With the advice sometimes given to grow small plants in small gardens, I cannot entirely agree. If there is no space for trees or shrubs, there is all the more need for some of the larger herbaceous perennials, such as Delphiniums, Tree Lupins, and Foxgloves. Apart from the beauty of the flowers, they are required to take the place of shrubs, and to

Mr. F. Phillips.

give diversity to the ground by breaking up its flatness. It is, therefore, a mistake to confine them to the background, though there, in association with climbers, they have their value in shutting out unsightly walls and fences. But a great part of that value will be wasted if they are not also brought forward in groups of various sizes, so as to give an irregular outline to the rectangular area of the ordinary small garden. The method is capable of an infinite number of variations, and it is here that the artistic eye is seen. An effective arrangement may sometimes be the result of mere chance, but this does not often happen.

**The Pampas Grass.**

May 8th.—The common Pampas Grass is sometimes raised from seed sown under glass, the seedlings being planted out when they are large enough. The disadvantage of this method, apart from its slowness, is that the male and female plants are distinct, and, though there is a difference in the foliage, it is not easily noticed by anyone unacquainted with both forms, especially when they are young. The male plant is not nearly so good as the female, as its inflorescence develops later. This habit, says a writer quoted by Mr. Walter Smyth, "unfits the plant for outdoor culture in Britain, as it leaves little chance of the flowers being perfected before frost, and the culms being then full of sap are unable to stand the cold, and so perish before the flowers can expand. The best way of utilising the beauty of the male plant is to cut the unopened panicles before the coming of frost. The heads should then be carefully tied, and the sheaths stripped off; the young florets lying snug within seem made of frosted silver, but so closely packed that they present the appearance of a solid body. But when this compressed cloud of silver blossoms is gently and repeatedly shaken, they separate, and the true form of the branching rachis becomes developed." Still, it is in the garden that the Pampas Grass shows its real beauty, and for that reason the female plant should always be chosen.

H. C. Davidson.

# The Gardens at Craigendowie, Reigate.

INTERVIEW WITH MR. F. PHILLIPS.

Of many beautiful gardens in the vicinity of Reigate, those of Craigendowie, the residence of Colonel R. W. Inglis, take a first place. Lying chiefly behind the house, in front of which are a few beds and a noble Cedar, they not only go up the slopes of Reigate Hill, but the hill itself, which affords shelter from the north and east, practically forms a portion of the gardens, and has recently been planted with a carefully-chosen and varied assortment of trees and flowering shrubs. When I visited the gardens (by courteous permission of the owner), during the second week in April, Mr. Phillips, the head gardener, first showed me a recent important extension, which adds materially, both to their utility and attractiveness. The extension includes a handsome, lofty house, fifty feet by eighteen feet, for pot fruit trees and for Chrysanthemums.

"As to the gardens," said Mr. Phillips, "we are going to devote a portion of the extension to vegetables, chiefly Peas. The soil is a heavy chalk, in some parts burr-stone, and, being cool, both vegetables and fruit do well. Still, it needs management, and cannot be worked during winter, when it is wet. We arrange to have a third of the vegetable garden empty through the winter, and trench it, for sowing seeds, early in the year."

"You have planted a quantity of fruit on the walls?"

"About a hundred trees, and under the east wall a herbaceous border, upwards of seventy yards long and ten feet wide, embraces a collection of up-to-date varieties, which flourish in an eastern aspect. On the other wall, sloping down towards the conservatory, climbers and Roses take the place of fruit, the former including Wistaria, Jasminum, and Pyrus japonica."

"One of the features in the conservatory appears to be the Schizanthus?"

"We find Schizanthus extremely useful for dot plants. The system is to sow in September, and keep the plants out all the winter, except those we want early, which are brought on in pots. The strain is Wisetoniensis. Here, too, are some seedling Amaryllis, Palms in variety, Oranges in blossom, and Azaleas (indica and mollis)."

"How do you fill the beds on the lawns?"

"Now, as you see, Auriculas and Polyanthus are largely used, with Narcissi and Tulips, or Forget-me-nots and double Arabis. The former are only twelve months old. We raise some every year, and, as a matter of fact, they do not flourish if they are more than two years old. We have done away with Pansies in the beds, and put them in the borders instead, so that they last through spring and summer."

"What is your combination for summer bedding?"

"Fuchsias, tuberous Begonias, and Geraniums in variety, in some of the beds; in others, standard Roses, Salpiglossis, and Marguerite Carnations. We also use, in other beds, Ivy-leaf Geraniums by themselves; with other plants they grow too strongly."

"Do you prepare the soil for your banks clothed with Rhododendrons?"

"Yes, with peat, leaf-mould, and loam. The Rhododendrons are all named, and embrace the newest varieties. They were planted twelve months ago, the beds being twelve feet wide and three feet deep. All Conifers do well in this soil, particularly Bays. In the division beyond the Rhododendron banks are most of the mature fruit and vegetables."

"They all seem to be thriving?"

"I have never seen either fruit or vegetables look better at this time of the year. We have spring Cabbage (Sutton's April and Flower of Spring) ready to cut. It is absolutely essential to net the Gooseberries and Currants, to protect them from bullfinches."

"You have a fine avenue of fruit in the centre, with an arbour at the end?"

"The arbour is clothed with Cratægus pyracantha, which has white flowers in May, and scarlet berries later, with dark green foliage. The avenue is covered with cordon Pears, Apples, and Plums. The best varieties of Apples are Allington Pippin, Ribston Pippin, Adams' Pearmain, King of Pippins, Lane's Prince Albert, Gladstone, Cox's Orange Pippin, Duchess of Oldenburg, Blenheim Orange, and most of the Codlins."

Beyond the fruit and vegetable quarters are some of the numerous houses, and in the first we entered were Melons.

The Avenue in Craigendowie Gardens, Reigate.

"This house," said Mr. Phillips, "is just the right size for Melon culture—fifteen feet long, ten feet wide, and six feet high. Melons are one of our chief fruits, to which special attention is paid."

"I should be glad to know the system you pursue."

"To be successful in Melon-growing, attention must be given to details. It is difficult to judge the exact time the first crop will take to finish its fruits to perfection, as so much depends upon the weather. But for the mid-season crop we allow three months from sowing to cutting, as we have no difficulty in maintaining a night temperature of seventy degrees. We always get the first crop ripe as early as possible, which is about the first week in May, though on one or two occasions we have cut at the end of April. Experience tells me that little advantage is gained by sowing before the 1st of January. I sow the seed in long 'sixties,' in a mixture of loam and leaf-mould, with a sprinkling of wood ashes, pressing the soil moderately firm before sowing. I insert only one seed in each pot, sufficiently deep to cover the seed. Care should be taken to have the soil moist, as little or no water will be required until the seedling appears. At the time of sowing the seed, the main bed is prepared, so that the bulk of soil may get warmed through, ready for the reception of the plants the first week in February."

"How do you make up the soil of the main bed?"

"With a cartload of loam, a barrowful of wood ashes, and a barrowload of spent Mushroom manure, thoroughly mixed. We have bricked beds three feet deep and eighteen inches high, and ledges on which rest oak slabs; these are covered with turfy loam, on which is placed the prepared soil. It is made quite firm, and, when finished, is about one foot deep, and two to two and a half feet wide. When the plants are well rooted, but not matted, we plant out fifteen inches apart, leaving the bed to slope from the centre both ways, in order to prevent the water lodging around the stem of the plant. A small stick is put to each plant. By making the bed firm, it is rarely necessary to pinch to induce side-laterals to push out. As soon as the plants are sufficiently strong, I secure two fruits on each, which it is necessary to do the same day, or one will take the lead. This occasionally happens, and even then I pinch one leaf beyond the fruit, and, as time goes on, remove all growth not required to furnish the house, as overcrowding is detrimental. Care must be taken to avoid cold water. If there are no other means of heating, a few cans full should be left in the house during the night. The water should always reach the bottom, and this may easily be tested by a pointed stick. When the fruits begin to swell, weak applications of manure-water greatly assist."

"Do you syringe much?"

"Both morning and afternoon, on all favourable occasions. As soon as the least signs of ripening appear, great care should be exercised as to watering and the atmosphere, as air is essential to the finish of the fruit. To prevent any undue strain on the plant, the fruit should be cut before it leaves the stem. Melons may be used three or four days after cutting, or, with care, they can be kept a fornight."

"What are the names of the varieties?"

"The green-fleshed are Ringleader, Royal Jubilee, and Superlative; the scarlet-fleshed include a seedling of my own, also Sutton's Scarlet, Hero of Lockinge, and Sutton's Ai. We have no difficulty in getting fruits from two to three pounds each, and we think that they are preferable to a big, coarse fruit. In the winter we utilise one of these houses for forcing Asparagus and Beans; also, in early spring, Strawberries."

Gloxinia House at Craigendowie Gardens, Reigate.

### How to Force Vegetables.

"When do you commence sowing Beans?"

"In October, to pick at Christmas. The variety is Canadian Wonder. We use 8-in. pots for the purpose, well drained, with a mixture of loam and rotten manure, made moderately firm. Five or six seeds are evenly distributed, to a depth of one and a half inches, and the pots are well filled, as we do not practise top-dressing. These are placed in this house, and kept damped between the pots. Great care is required in watering, as anything approaching sour soil means death to the plant. When the fruit is set, weak applications of manure-water are an advantage. Batches put in every fortnight afford a regular supply. The soil, kept in a dry place after Beans are finished, is very useful for pricking out the numerous seedlings during spring."

"What about Asparagus?"

"The Melon beds are used for the purpose of cultivating Asparagus, with two or three inches of soil over the bottom. The roots are spread out, but the crowns kept as close together as possible. On these is placed about four inches of fine soil, either the siftings of the potting shed, or loam and leaf-mould. With a temperature of fifty to fifty-five degrees, the crop may be ready for use in about a fortnight."

"Do you force any other vegetables?"

"The soil being cold, we find it necessary to sow Onions under glass to procure them of good size. Boxes are prepared during wet days, and in January they are filled with fine soil made firm and watered. After the soil has been drained, the seed is sown, just covered with fine soil, and placed in the early Peach house. After the seedlings are well up, they are gradually hardened off and placed in a lower temperature. During February they are pricked off into other boxes, about an inch apart, and kept moving until it is safe to place them in a cold frame. From the frame they are removed outside, the ground being well manured and trenched during winter. During early spring, wood ashes are worked into the surface, and made firm and fine. When the weather becomes suitable, towards the end of April, they are planted out in rows, one foot apart, care being taken not to bury the bulb. The main crop consists of Ailsa Craig."

### The Treatment of Gloxinias and Begonias.

The subject of plants under glass and plants for exhibition next claimed our attention.

"In this house," continued Mr. Phillips, "we grow about two hundred Gloxinias, which do best in a mixture of two-thirds loam, one-third leaf-mould, rotten manure, and sand, with a little charcoal, but no peat. Tuberous Begonias, which we go in for largely, do best in a mixture of half loam and half leaf, rotten manure, and sand."

"Are Begonias Gloire de Lorraine a feature with you?"

"Amongst autumn-flowering plants they take a prominent place. Early in March we cut a few down fairly low, some of the soil is removed, repotted, and placed in the Cucumber house, to induce cuttings to throw up. As soon as the cuttings are two inches long, they are inserted in thumb pots, three in a pot, in a mixture of loam, leaf-mould, peat, and sand, placed in a box (in which is put some Cocoanut fibre), and kept close by means of pieces of glass. As soon as they are rooted they are taken out of the box and placed in the shady end of the house for a few days before potting. Then they are potted off singly into small pots in the same mixture. From these pots they go into large 'sixties,' and from large 'sixties' to 'forty-eights' or 'thirty-two's,' as the case may be."

"When do they receive their final shift?"

"The end of June. During June, July, and August no fire heat is given, but the house is closed early in the afternoon. We take care to place a neat stick to each plant until it begins to throw out side growths, when these must be attended to, if required for exhibition. I find that the best supports for the purpose are Bamboo tips. At the end of August, fire heat is given, to maintain a night temperature of sixty to sixty-five degrees. During the next two months the plants make rapid growth. All flower is removed until a month or five weeks before it is required. By means of this treatment, and a careful and judicious application of manure-water, little difficulty is experienced in obtaining exhibition plants, or plants for home use."

### Cinerarias and Streptosolens.

"You have a fine show of Cinerarias?"

"This house we are now in is called the Cineraria house. They are all Sutton's strain, of the stellata type, and represent many shades of colour. I never use more than 6-in. pots to get them as large as we require. We sow the seed at the end of May, and grow them along through summer and winter as cool as possible, flowering early in January, and continuing until the end of April. If blooms are put in water directly they are out, they will last for nearly a week."

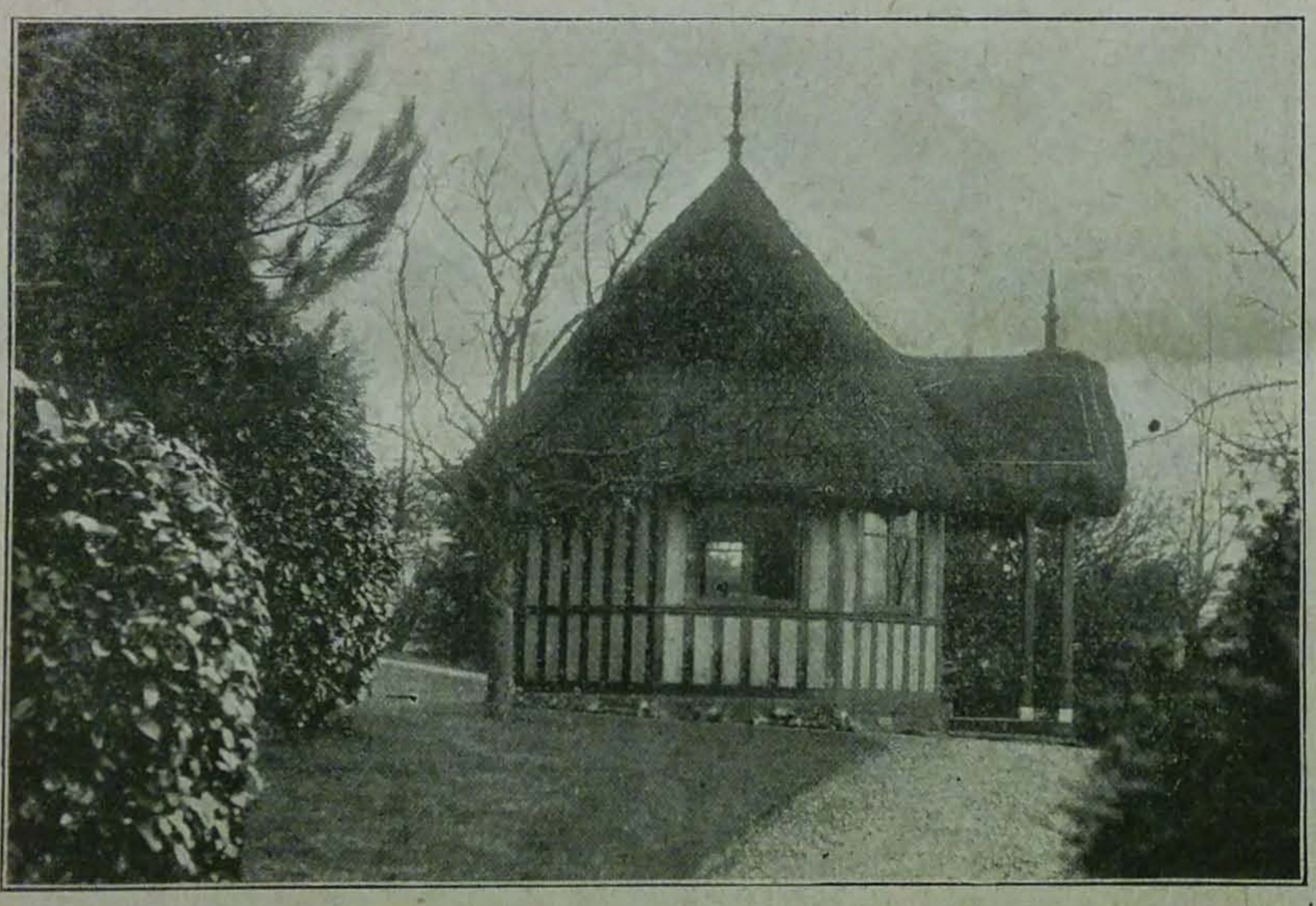
"What is your treatment of Streptosolens?"

"I strike them in March, pot off as soon as the cuttings are struck, and, when the weather is favourable, put into frames. They are potted on as required, the final shift taking place in August, into 'twenty-fours,' or 8-in. pots. I run them on a single stem, place under cover in a light, airy house in September, and they commence to flower the first week in February. When we have finished with the Cinerarias, the Tomatoes come in. We grow Sutton's Perfection, Golden Queen, and a seedling which I have raised with a good smooth skin and a good colour."

**The Orchard Houses.**

Proceeding on our way up the slopes, I noticed, in a snug corner under a high wall, Strawberries, and Mr. Phillips said:—

"I am trying Bedfordshire Champion, which looks as if the soil would suit it. The other varieties are Royal Sovereign, Trafalgar, and Sir Joseph Paxton. There are also Peas in this corner; they were sown January 22nd, and are now about three inches high. William the First Improved and Early Giant are the two earliest, the other varieties grown being Sutton's Exhibition, and, for the main crop, Duke of Albany. Here, too, are more spring Cabbages, ready for cutting, and on the walls are Plums, which do well when they can be protected from the birds, which are our greatest trouble. In the row of cool pits in front of



The Summer House in Craigendowie Gardens, Reigate.

the orchard houses we grow early Potatoes and salads, a plot of Daffodils, under standard Roses, being planted for effect. There are four orchard houses, from thirty to forty feet long."

"What do you grow in the first?"

"Peaches and Nectarines in pots, which are useful because they can be moved. As you see, they are well set with fruit. Lying high as we do, I mulch with green cow manure in December, after the houses have been cleaned and put in readiness for starting. I leave as much air on as possible afterwards for a few days."

"Does that principle apply to Plums?"

"Yes, Plums must have plenty of air, and for that purpose the door of the house is always kept open. We grow the Plums as cordons, and as soon as they are four or five inches in growth we pinch back to three well-developed leaves. This is done by degrees, not all at once, to stop root-action. The varieties of Plums include Ickworth Imperatrice (dark blue, which should be left on the tree until it begins to shrink), Green Gage, Jefferson, Transparent Gage, Coe's Golden Drop, and Denniston's Superb. Apricots are also grown in pots in this house, the only variety being Moor Park."

"I see you combine Nectarines and Figs in the next house?"

"We call it the early Nectarine house, Nectarines being grown on the roof, Figs on the back, and Nectarines also in pots. The varieties of the latter include Pitmaston Orange, Pineapple, Lord Napier, and Violet Hative, some of these being used for pots. The Figs are Brown Turkey and White Ischia. The next house is devoted to Pears, with Nectarines at the back. The varieties of Pears include Doyenné du Comice, Durondeau, Beurré Hardy, Louise Bonne of Jersey, Thompson, Williams's Bon Chrétien, Madame Treyve, and Clapp's Favourite. We keep the Pears fairly cool, not syringing much, except on very hot days. The wood is kept as hard as possible."

"How many varieties do you go in for in the Cucumber house?"

"We are only growing three this year—Sutton's Every Day, Telegraph, and Discovery. The soil we use is rough, turfy loam, with a little Mushroom manure, and only just enough mould to put the plants in. We keep adding to it every week, and this prevents the soil from getting sour."

**Foliage Plants for Exhibition.**

Another house of considerable size is devoted to Orchids, Gardenias, and Anthuriums, and in the winter and in the summer to Caladiums. I asked Mr. Phillips as to the treatment of Anthuriums, and he rejoined:—

"We do not pot them unless required, but top-dress with rough loam and dry cow manure. They respond to that treatment. Of Orchids, we have a nice batch of Cattleya labiata just coming away."

"Crotons are conspicuous in your stove."

"Yes, we grow a great number, and I regard them as one of the kings of stove foliage plants. We do not grow the broad-leaved varieties, but the fine-leaved, which are more useful for table plants or grouping. Amongst the best are Warrenii, Countess, Lucy, Aigburth Gem, Chelsoni, Victoria, Golden Ring, and Mrs. Dorman. Crotons thrive in a mixture of two-thirds loam and one-third half-decayed leaf-soil, sand, and charcoal. The atmosphere should be moist, about the same as that for Palms; it is most important that the plants should be kept clean, as Crotons quickly show the effect of insect pests. They love sunshine, but in the summer they must be watered carefully twice daily, as they soon shed their bottom foliage, which takes away the value of the plant."

"Do you care to say anything about the cultivation of Dracænas?"

"For exhibition purposes, four of the best are Cooperi, The Queen, Duchess of York, and Mrs. Moseley. They are quite easy to cultivate, providing they have proper attention; otherwise they die back from the tips of the leaves. I find the best mixture to be two-thirds loam and one-third sand, broken crocks, and peat. They can be readily increased, either by cutting the stem into lengths of about an inch, by propagating the top, and by wringing. 'Wringing' means to take out a portion of the stem immediately under the foliage, and bind it up with moss and turfy loam until the roots appear, or by severing the end of the root commonly called tap. These should be inserted in pans of light, sandy peat until growth appears, when they should be potted in small pots, in the mixture already mentioned. Syringing has to be done even more carefully than with Crotons, owing to the receptacle at the base of the leaves for the water, which, if allowed to remain long in a low temperature, would cause decay."

"Have you anything special to say about Palms?"

"One of the best Palms is Phœnix Roebelenii, and another Cocos Weddelliana. In the stove we also grow on a single stem a quantity of Panax, which is very useful for table purposes, and Saintpaulia for edging the groups. Care is taken to give every plant plenty of room for growth. Cyclamen are kept in bloom easily for six months. We sow in August, and grow on in the stove on a shelf near the glass till April, when they are removed to a cooler house, gradually hardened off, and put in the cold frame for summer. We take them indoors early in September, and begin to flower early in the winter. In the Fernery at the end of these houses we grow cool Orchids, such as Cymbidiums, Cypripediums, and Odontoglossums, which are used for exhibition purposes and general decoration."

**How to Grow Chrysanthemums.**

"I believe you grow Chrysanthemums considerably?"

"They are not grown entirely for showing purposes, but we generally find ourselves amongst the exhibitors during November. The Japanese are propagated in December, Incurves, decoratives, singles, and late varieties in January, and summer-flowering varieties in March. The late varieties are chiefly Mrs. Fogg, Princess Victoria, Red Canning, and Robert Morgan. Our main object is to keep the plants gently moving all the time, but we avoid coddling. Thumb pots are used for the cuttings."

"What kind of soil are the cuttings placed in?"

"Fine loam, leaf-mould, and sand. The pots are put in boxes covered with glass, to prevent flagging. As soon as they show the least signs of growth, they are removed to a position near the glass, and air is admitted on all favourable occasions. When they are fairly well rooted, they are shifted into a mixture of loam, leaf-mould (not too rotten), sand, and wood ashes, in large 'sixties.' As soon as the weather is favourable, they are placed in cold frames, when, by the end of March, they are ready to be shifted into 'thirty-two's,' or 6-in. pots. We add to the soil already mentioned a sprinkling of bonemeal. From this stage special attention is needed to stopping the different varieties, a sharp look-out must be given for fly, and the plants must be staked to prevent breaking. They are gradually hardened until they go outside, where they remain until the final shift into 'sixteen'-size pots, and 'twelves' for the coarser varieties. The soil for the final potting is good loam (not too fine), spent Mushroom manure, wood-ashes, bonemeal, and sand. The plants are made very firm, by means of a wooden rammer, the object being short-jointed, well-ripened wood. On very hot days we syringe with very weak soot-water."

"How about staking and watering?"

"Care is taken in staking the plants to use one stout stake in the centre, the two side-growths being secured to the centre with strong raffia. Watering must be judiciously done, especially after potting, until the roots are sufficient to absorb the moisture, but as growth increases water must also be increased. Weak applications of any approved manure may be advantageously given. I leave our plants out as late as possible, if the weather is favourable, but not after they begin to show colour. They are generally at their best the first week in November. We grow about four hundred."

**Useful Bulbs.**

"You seem to go in largely for bulbs?"

"They are very useful during winter and early spring for cut flowers and decoration. The first to be potted are Roman Hyacinths, Freesias, and Paper-white Narcissus. For cutting purposes, nearly all kinds of bulbs may be placed thickly in boxes, which saves labour and expense. The Duc van Thol Tulips we grow in this way. If they are wanted in pots or bowls, they can easily be lifted just before they flower. Hyacinths are chiefly grown outside, on account of their strong scent. They require liberal treatment in these circumstances. The beds should be well manured to a good depth, from the middle to the end of October, before planting is commenced. Planting should be done with a trowel, not with a dibber, as on wet, heavy soil the dibber forms a basin which holds the water and tends to rot the bulb. Should the soil be at all wet during planting, a dash of sand should be put at the bottom of each hole, for the bulb to rest on."

"There still remain the Vineries?"

"We begin cutting Grapes early in June. The early varieties are Black Hamburgh, Madresfield Court, and Ryton Muscat. The last is similar to Muscat of Alexandria—not so good in colour, but of delicious flavour. To prevent the berries of Madresfield Court from splitting, the laterals should be allowed to run. In the late Vinery we have Gros Colmar, Muscat of Alexandria, Mrs. Pince, Lady Downe's Seedling, and Black Alicante."

Leaving the Vineries, we made our way further up the hill to a kitchen garden planted last year, where Potatoes and other vegetables seem likely to do remarkably well. Along the sides of the hill, still higher, are clumps of Box, Yews, Brooms, Sea Buckthorns, Laburnums, Lilacs, Mountain Ash, Beech, and Snowberry, which in twelve months have made considerable progress. Descending again, we paused at a delightful summer-house in a sheltered spot, commanding splendid views of the South Downs, with Daffodils and other spring flowers planted in the surrounding grass. Near the summer-house is a useful corner, where Violets and Calceolarias are grown.

"With regard to Violets," said Mr. Phillips, we grow one single variety, Princess of Wales, and one double, Marie Louise. We have been picking nearly all the winter. Calceolarias—the shrubby varieties—are used for window-boxes and borders. One of our latest additions is the rockery by the steps we are now passing, in which there are planted a great many of the best varieties. As you will have noticed, there is nothing at all stiff in these gardens, and we make the most of all our space, without regard to precedent.

"Judging by the fact that your show cards paper the potting sheds, you must have been very successful in showing?"

"I have shown a good deal during the eight years I have been head gardener here—I was previously foreman for ten years—the exhibits being fruit, flowers, and vegetables. In addition to these cards, I have been awarded several medals, which were won at Croydon, Reigate, and Redhill. I find time to act as hon. secretary of the Borough of Reigate Cottage Garden and Horticultural Society. It is well supported by the gentry of the neighbourhood."

Alfred Wilcox.

# Letters from a Lady Gardener

## No. 301.—ROSE BLIGHTS, INSECTS, AND BIRDS.

DEAR KATE,—How are your Roses doing? They will now be covered with buds, and if you wish for perfect blooms, you should examine them at once, with a view to destroy any blights which may be present. Green-fly is almost sure to appear, and this can be sponged away with warm soap and water, made into a thick lather, for this smothers the aphides, which breathe through their skins. But, in doing this work, you should be careful not to kill any of our insect friends, which, I am sorry to say, often suffer from our ignorance, with their lives.

**Useful Garden Insects.**

Lady-birds, for instance, when they are larvæ, devour green-fly as well as black-fly, and all sorts of aphides. You can tell the little creatures by the black and yellow spots which are visible on their dark grey bodies; but the grubs are flatter than the perfect insects, and their colours are dull, without the brilliant scarlet of the beetle. Then the larvæ of the lace-wing flies, and the hawk-flies, as well as those of the ichneumon-flies, and the wasp-flies, are all most useful destroyers of green-fly, and should be protected as tiny under-gardeners. You can tell them from caterpillars by examining their surroundings; the lace-wing grubs are sometimes covered with the empty skins of aphides, and almost buried in them; the hawk-fly larvæ are curious little blind things, tapering in form from one end to the other. Their broad end clings to the plant, whilst the narrow end gropes about (for they do not possess eyes) until it feels a green-fly, when it seizes the insect, and sucks it dry, then flinging the skin away. Amongst the worst insect enemies of the Rose is the caterpillar of the leaf-curler, but if this can be detected before it has eaten its way through the leaves, which it glues together, not much harm is done. You should pick off and burn all leaves which are badly injured, but others may be pinched to destroy the insect inside.

An Ideal Situation for Ferns and Aquatic Plants.

Then there are the parasitic fungi, commonly called orange-rust, leaf-spot, and the trouble-some mildew which is so often seen on Roses under glass. All are highly infectious, and can only be dealt with successfully in their early stages. Even out of doors, in seasons like that of last summer, mildew sometimes appears, and probably the want of sunshine to ripen the growths accounts for this. Weakly, sappy shoots are the first to be infected, and these should be removed and burned at once, syringing the whole plant with a solution of potassium sulphide (a deadly poison, mind), in the proportion of half an ounce to a gallon of hot water, which should be used warm, saturating the whole of the foliage with it. Mildew under glass usually means too close an atmosphere, or it may be started by dryness and poverty of soil, or even by a sharp draught caused by opening a ventilator suddenly and widely in a bitter wind; in fact, anything which lowers the vitality of the plant may start it.

Orange-rust and all the fungoid pests on Roses, Hollyhocks, etc., can be destroyed by repeated syringing with potassium sulphide, and it is an equally good remedy for red-spider, especially if a little soft soap is mixed with it, to make it adhere to the leaves. Red-spider and thrips are sure signs of a dry, arid state of atmosphere; they can be destroyed by altering this, and a good plan to kill red-spider is to syringe the Rose, water the whole of the ground in the greenhouse thoroughly, and then shut up the place in the afternoon of a sunny day. The resulting steamy heat is fatal to red-spiders. Water should be thrown down on the ground of a greenhouse several times a day in hot weather, for the heat under the glass is sure to be great, and unless it is tempered by moisture, all the plants will suffer.

Plenty of air, too, night and day, should now be the rule; the upper ventilators should be left just ajar at night, to let off the steam from

S.W. Philpott
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July 25, 1914.
GARDEN LIFE
The Gardens at Anstie Grange, Holmwood, Surrey.
IN magnificent June weather I visited the gardens of Mr. C. E. Heath, at Anstie Grange, and had the opportunity of seeing them under the most favourable conditions. Mr. S. W. Philpott, who has been in charge of them since they were altered and extended by the present owner, might, perhaps, demur to this view, and affirm that the gardens look their best during the spring months. Probably there is, in fact, no period of the year when they are not full of interest. Not only are they beautiful themselves, but they are superbly situated. The drive of less than two miles from Holmwood station is through some of the most enchanting of Surrey scenery, and the immediate approach to the mansion, which is between five and six hundred feet above sea level, delightful. It includes, on the side of the hill, an ascent by an ornamental footpath to the house, which is made under a pergola of Roses.
CLIMBING ROSES ON THE PERGOLA.
"This," said Mr. Philpott, "is quite a new feature, and was designed by Mrs. Heath, who, as well as her husband, is very fond of the gardens. It is exposed to all the winds that blow, and, considering that it was only put up a little more than two years since, has, I think, made good progress."
"Is it clothed with Roses?"
"Yes. The varieties are Dorothy Perkins, Lady Gay, Mush Rambler, Crimson Rambler, Ruberti, Ruby Queen, Debutante, American Pillar, Arda Rover, Dundee Rambler, Trier, Minnehaha, and others.
"The original residence was built about fifty years ago," continued Mr. Philpott, as we reached the front entrance. "Since then important additions, the instance of which Mr. Heath greatly modernised it. The improvements seem to have been chosen with the view to bring everything up to the latest style, and have been highly successful. The architecture of the house is generally admired, but no attempt has been made to decorate the north side, and the carriage drive, as you perceive, terminates in a square of gravel."
THE SOUTH TERRACE.
"But close to this there is a terrace which appears to have a fine show of flowers."
"It faces south, and we make the most of it. In the spring Wallflowers and Ericas are the leading features, the former in separate colours, and the latter consisting exclusively of Erica carnea. The recesses are now planted with Ivy-leaved Geraniums, Charles Turner, King of Denmark, Gloire Lyonnaise, and Viola Maggie Mott. The Violas take the place of Erica carnea, and we use them largely for table decoration. They stand well in the vases, and last for three or four days. There is a much greater floral display on the adjoining terrace, which faces south-west, and in the spring the whole of the borders were planted with Myosotis Royal Blue, and Cottage and Darwin Tulips, the walls being covered with Wistaria multijuga, which is in flower over the terrace scarcely for three or four weeks. Now the Wistarias give place to Wichuraiana Roses, the varieties being Dorothy Perkins, Lady Gay, Hiawatha, and American Pillar. The Roses will supply a mass of bloom in a week or two, and American Pillar already makes a great show. By way of contrast to all the wealth of colour is Clematis Queen Alexandra, and there is also a fine standard Fuchsia, Mrs. Marshall."
"And the present combinations in the borders?"
ANSTIE GRANGE—THE SOUTH TERRACE.
"Salvia patens and Phlox Drummondi, with Verbenas of a pink shade at either end, the borders being dotted with Brugmansias, Fuchsias, and Plumbago capensis."
"What are the creepers on the tea house?"
"Vitis Coignetiæ, and Climbing Caroline Testout, below being a very floriferous specimen of William Allen Richardson. On this terrace also is a flourishing example of Metrosideros coccinea, grown without protection, which has been on the terrace wall for five years."
"How do you treat it?"
"We do not treat it at all. It came here from Kitlands, Mr. Heath's former place, where it was grown out of doors for six years, and it has been here since we removed. There is one precaution necessary which we always observe—it is kept rather moist at the roots.
"The entrance to the conservatory is on the western terrace, and though the building itself is small the contents are carefully selected. At the present moment the predominating element is Begonia Worthiana, which grows up in pots to three feet in height, and furnishes a quantity of blooms from June to October. The fine orange flowers are very much admired."
"They are so effective that I should be glad if you will give me a few details of their culture."
CULTURE OF BEGONIA WORTHIANA.
"The tubers for pot work are started towards the end of February, and when well on the move are potted into small pots, with a rich compost of loam, sand, and old hotbed manure. They are grown on in a temperature of about sixty degrees, and potted on as growth proceeds. Large specimens up to three feet in height can readily be obtained by selecting tubers with several growths, finally placing them in 8-in. or 10-in. pots. These make first-rate plants for house or conservatory decoration. Some of the central growths should be tied to a suitable green stake, and the outer growths allowed to hang down in a natural manner."
"And the Pelargoniums?"
"There are three varieties, of which Clorinda is one. After flowering, the plants are stood out in the open, and when the wood is well ripened are cut hard back. Some of the cuttings are inserted several in a pot, to replace a certain number of the old plants. The soil in the pots is kept moderately moist. When the old plants begin to break into fresh growth they are shaken out of the soil, and some of the stronger roots trimmed off, and then potted into 48-sized pots. A good lasting compost is used for them, chiefly loam, a small amount of leaf-mould, sand, and a dash of bone meal. About October these are placed in one of the houses, and kept steadily growing during the dull months. At the end of January they are put into their flowering pots, 6-in., 7-in., or 8-in., according to their strength. We generally pinch them once or twice to make them more bushy, keep them well syringed, and fumigate occasionally, in order to keep down green-fly. Plenty of fresh air is allowed whenever outside conditions permit."
"They make a very fine show at the present time. How long will they continue in flower?"
"Until the end of July. In October the Begonias make way for Salvias and Chrysanthemums, and other winter-flowering plants."

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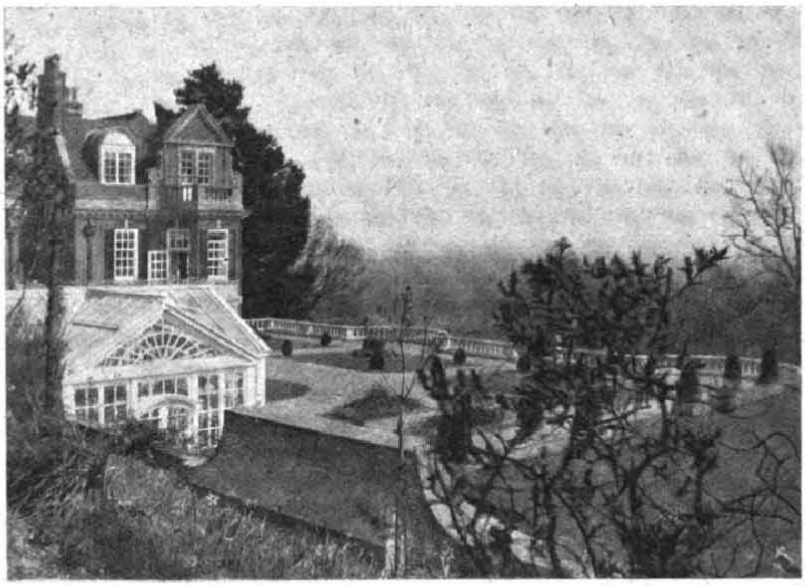

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"They are so effective that I should be glad if you will give me a few details of their culture."

CULTURE OF BEGONIA WORTHIANA.

"The tubers for pot work are started towards the end of February, and when well on the move are potted into small pots, with a rich compost of loam, sand, and old hotbed manure. They are grown on in a temperature of about sixty degrees, and potted on as growth proceeds. Large specimens up to three feet in height can readily be obtained by selecting tubers with several growths, finally placing them in 8-in. or 10-in. pots. These make first-rate plants for house or conservatory decoration. Some of the central growths should be tied to a suitable green stake, and the outer growths allowed to hang down in a natural manner."

"And the Pelargoniums?"

"There are three varieties, of which Clorinda is one. After flowering, the plants are stood out in the open, and when the wood is well ripened are cut hard back. Some of the cuttings are inserted several in a pot, to replace a certain number of the old plants. The soil in the pots is kept moderately moist. When the old plants begin to break into fresh growth they are shaken out of the soil, and some of the stronger roots trimmed off, and then potted into 48-sized pots. A good lasting compost is used for them, chiefly loam, a small amount of leaf-mould, sand, and a dash of bone meal. About October these are placed in one of the houses, and kept steadily growing during the dull months. At the end of January they are put into their flowering pots, 6-in., 7-in., or 8-in., according to their strength. We generally pinch them once or twice to make them more bushy, keep them well syringed, and fumigate occasionally, in order to keep down green-fly. Plenty of fresh air is allowed whenever outside conditions permit."

"They make a very fine show at the present time. How long will they continue in flower?"

"Until the end of July. In October the Begonias make way for Salvias and Chrysanthemums, and other winter-flowering plants."

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Proceeding along the terrace paths, and noting two or three flourishing Pittosporums, and on the steps leading to the higher level a quantity of Saxifrages, we arrived at the principal lawn, which I observed was considerably burnt, and I expressed my surprise.

"We have practically not had any rain since March, and never sufficient to give any help to the lawn. It is one of the drawbacks of the situation that rain so often passes over us. As to the soil, it is very stony. All the walls in the gardens are built from stone on the estate."

**PLANTS ON THE ROCKERY.**

"On the rockery below the terrace, there is the general run of suitable plants, including Saxifrages, Aubrietias, Dianthus, Brooms, Ericas, and large plants of Phormium tenax, the New Zealand Flax, which has no protection. There are Pinks between the stone pavement. A Dracæna has stood here for three years, and is only protected with matting when needed. We grow Camellias out of doors, including Lady Clare, Donckelaari, and Chandleri elegans, a beautiful double pink as hardy as a Laurel, and one of the finest things for a north aspect when the soil is suitable."

"Your soil seems also to suit Anchusas."

"They certainly give a mass of colour in the borders below the rockery. We grow both the varieties Dropmore and Opal together. In a damp season they grow up to six or seven feet. Close to the Anchusas are some Potentillas, forming a combination of blue and orange, and a Ceanothus. There is also a flourishing little plant of Carpentaria Californica, and at the end of the lawn towers a striking specimen of Pinus insignis. This lawn is used as a bowling-green."

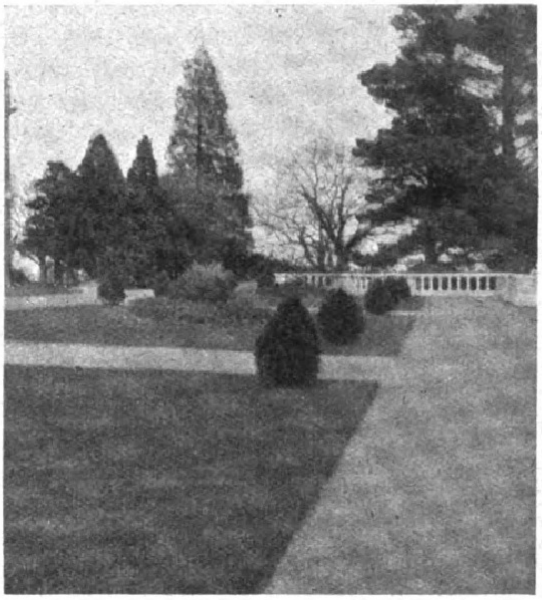
**THE ORNAMENTATION OF THE STREAM.**

"Growing by the side of the stream, which runs through this part of the garden, are Spiræas in variety and of vigorous quality, Irises, and Primulas, while in the borders at different times Sweet Peas, Pentstemons, Antirrhinums in variety, and Dahlias are very prominent.

"Here is an enclosure on the flat, with a pool which is used as a bath. It was made two years ago, and the water is about three feet six inches deep. On one side of the enclosure Dianthus covers the stone wall, and a Yew hedge runs along the other."

"You might mention some of the varieties of plants on the second flight of steps below the rockery."

"They include Escallonia Philipii, a sweet-scented variety; Olearia macrodonta, and Spanish Broom, all of which are now in flower."



A CORNER OF THE GARDENS AT ANSTIE GRANGE.

"And where is your collection of Rhododendrons situated?"

"Down below in the wild garden."

"When do they begin to flower?"

"In December, and last, as you see, till nearly the end of June, though not many are left now. They start with Nobleanum, which is often in bloom before Christmas. Præcox follows, and Rosamundi. In March Jacksonii flowers, and subsequently the ordinary kinds in quick succession. Amongst the best of the remainder are Pink Pearl, Mrs. Stirling, Alice, Brilliant, and the new Corona.

"Of course, one reason why the Rhododendrons flourish almost without exception is that they are growing in their natural soil, which is peat. They will, of course, thrive in other soils, but peat certainly suits them best.

**THE PRINCIPAL SHRUBS.**

"You have a number of other shrubs in addition to those already named?"

"Some of the most important of these are Halesia tetraptera, Eucryphia pinnatifolia, Embothrium coccineum, Enkianthus campanulatus, and Magnolias in variety, including the rare Campbelli. There are quantities of the more common shrubs, such as Pernettya, Ribes, Lilacs, Deutzias, Weigelias, and hosts of Azaleas and Ericas. Close to a rustic bridge we are just making a little Bamboo avenue, and there is every promise of good growth. We have naturalised thousands of Daffodils, which, in the spring, with their faces turning westward, are then the glory of the wild garden. Primula japonica is also at home.

"We come now to the Rose garden, which is also one of the developments of the last five years. Each bed is devoted to one variety only. There is also a wealth of climbing Roses on the wall. The hedge along the woodland drive, about two hundred yards long, consists entirely of Dorothy Perkins."

"You have a great many blooms in evidence to-day."

"Yet this morning between four and eight o'clock we cut upwards of three hundred buds, and now at three there are at least as many blooms, with a great number of buds hastening to maturity."

"Your kitchen garden must have been made some time ago?"

"No, it was only taken out of the woods five years ago. With regard to the crops this year, Apples are poor, Pears moderate, every Plum tree is loaded, Peaches on the walls a full crop, Strawberries good, and other small fruit quite up to the average. The vegetable crops need rain badly. Peas are largely grown, also Broad Beans, Runner and French Beans, Celery, and smaller plots of other vegetables. Early salads are in great demand here, and are grown in the frames; also Cucumbers and Melons."

**THE BEST HARDY FRUIT.**

"Can you tell me the varieties of hardy fruit which you find most successful?"

"The best Apples include Cellini Pippin, Bismarck, Newtown Wonder, Atalanta, King of the Pippins, Worcester Pearmain, Blenheim Orange, Cox's Orange Pippin (though it cankers badly), Annie Elizabeth, Schoolmaster, and Warner's King.

"Pears are chiefly Williams' Bon Chretien, Durondeau, Marie Louise, Marie Louise d'Uccle, Louise Bon of Jersey, Winter Nelis, Thompson's, Glou Morceau, Josephine de Malines, and the cooking varieties Cataillac and Uvedale's St. Germain.

"Plums include Greengage, White Magnum Bonum, Jefferson's, Diamond, Kirke's, Pond's Seedling, Prince of Wales, and one or two others.

"As to the rest, the Peaches are Grosse Mignonne, Early Alfred, Frogmore Golden, Barrington, and Belgarde. Of Gooseberries, we grow Champagne, Warrington, Broom Girl, Whinham's Industry, and Rumbullion."

"What Strawberries do you grow?"

"Three, Royal Sovereign, Paxton, and Givon's Late Prolific. There are two varieties of Raspberries, Superlative and Baumforth's Seedling. Red Currants are represented by one variety, The Comet. Black Currants are not grown."

**FAVOURITE VEGETABLES.**

"Do you care to say anything about vegetables?"

"There is nothing very special. The Peas are Little Marvel and Early Giant, Bountiful, Sutton's Supreme, Pioneer, Autocrat, and Late Queen for late crops. Of Runner Beans the principal variety is Hackwood Park, which gives plenty of long, straight pods. The Potatoes include Harbinger, Ringleader, for pots and frames, Windsor Castle, May Queen, King Edward, and White City. Sutton's Superb Pink and Solid White are the only varieties of Celery."

Finally, we spent a little time in the greenhouses and fruit houses. The crops of Grapes, Muscat of Alexandria, Madresfield Court, Canon Hall, and Black Hamburgh, grown in three houses, are very fair; and the same may be said of the Peaches. There are three Peach houses in various stages. In the plant houses Begonias and Carnations are prominent; and quantities of other plants and Ferns suitable for house decoration are grown.

ALFRED WILCOX.

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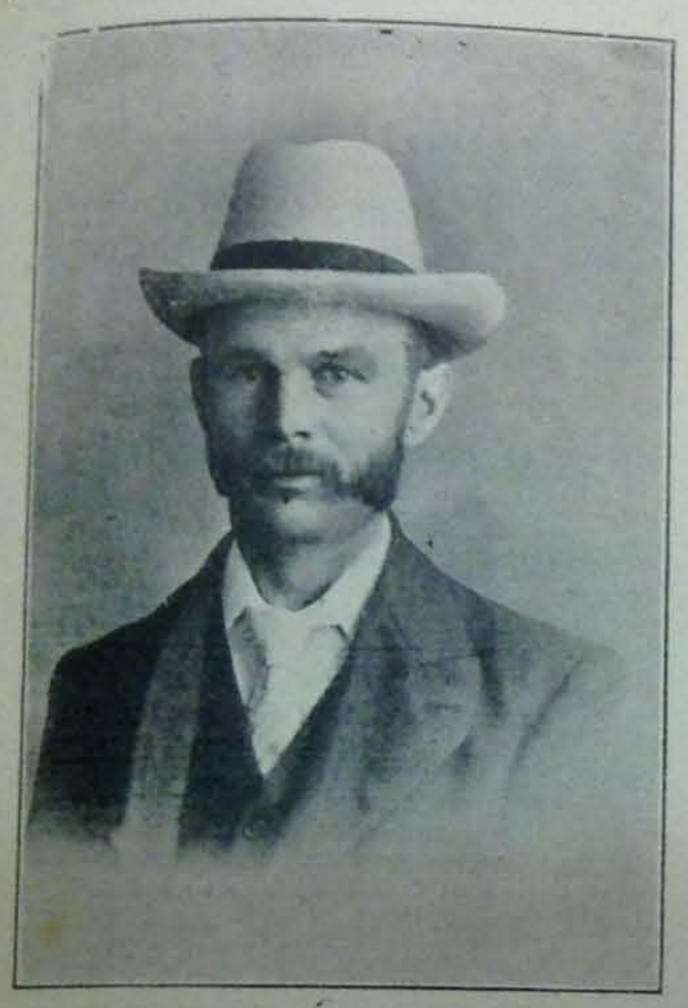
of active fermentation. Treated in this way for about three weeks, ninety per cent. of the cuttings, when lifted from the bed, were found to be furnished with a good tuft of roots. The others had a few roots, or simply a callus, but very few had blackened, as one knows so often happens with cuttings placed in a bottom heat of manure. The method I have just described appears worthy of every consideration, since cut-



MR. T. R. POOL.

tings rooted in August or September can be planted out in the autumn, establish themselves in the winter, and make fine bushes in the following year."

August 17th.—I strongly recommend everyone, when making a list of bulbs to buy, to include Ixias. Several of the species have been grown in this country for considerably over a century, but, for some reason or other, they seem to have found their way into comparatively few gardens until quite recently. Exactly what has brought them into favour—though not, even yet, into as much favour as they deserve—I don't know. It may be their cheapness—I see that in some catalogues mixed bulbs are priced as low as eighteenpence a hundred—or it may be the improvement effected in them by the hybridist. Certainly, there is no lack of beautiful varieties. In spite of the many other flowers to divert attention from them, they were quite a feature at the last Temple Show. In pots or in the border they are equally charming.

August 18th.—An instance of the rapidity with which bulbs multiply is given by Mr. Halsham. In the year 1887 he planted two bulbs of Narcissus Horsfieldii, which were, at that time, comparatively new and expensive. They soon formed a large clump, and flowered well every year. In 1897 they were lifted, and, on being counted, were found to number fifty. Replanted in the autumn in two groups, they have not been disturbed since, and in the spring of 1903 each group carried between eighty and ninety fine flowers. Probably, if the bulbs had been lifted every year, the result would have been still more remarkable, but, as it is, it shows a very high rate of increase.

August 19th.—Everyone who has a garden should wage war upon daddy-longlegs, for the grubs, commonly known as leather-jackets, are most destructive to grass, Peas, Beans, Cabbages, Turnips, and many other plants. The flies are on the move now, laying their eggs on the ground or on the grass, weeds, or rubbish. It has been estimated that a single female will lay as many as three hundred. They hatch in about fifteen days, and the grubs remain in the ground during the winter, feeding on the stems and roots of grasses and other plants. Fortunately, such birds as starlings destroy great numbers of them, and, if hens and ducks are allowed the chance, they will do the same.

August 20th.—I am afraid that at this season Spiræas are often neglected. It seems to be forgotten that they are really bog plants. They can hardly have too much water, and are among the few plants that are not injured by being allowed to stand in it. Yet, not infrequently, they are put away in a corner during the summer, and are left dust-dry. And then they are called disappointing, because they fail to flower as well as they did when they were first bought.

H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 203.—MR. T. R. POOL, AT THE GARDENS, BROWNSEA CASTLE.

AT the end of June it was my good fortune, thanks to the courtesy of Mr. C. van Raalte, to visit Brownsea Island, with the object of going round the garden. The island is delightfully situated in Poole Harbour, and is between six and seven hundred acres in extent. The Castle is a stately mansion, which can be clearly seen from the mainland, and, as I approached in a coastguard's boat from the Sandhills, near Poole, I observed the church and a number of comfortable cottages, with a building of considerable size, which forms an institute for the use of the employees of Mr. van Raalte. There are more cottages at another point of the island, but the feature of the coastline is the wood, which runs right along, the trees being close to the water. In rough weather, Brownsea is not very easy of access, but, generally speaking, it is not difficult to cross the harbour. The gardens in this picturesque island home are, I soon realised (under the guidance of Mr. T. R. Pool), extremely interesting, and, in some respects, quite unique.

We commenced with the Rosery, which is close to the handsome clock-tower, noting here a fine specimen of Ceanothus Veitchii, which, when in flower, presents, with the Clematis montana, a pretty combination of colour. In this garden is also a lake, with goldfish, and a very fine piece of Italian marble. The white Banksian Rose is a feature on the wall, covering over six hundred feet of its surface. There is also a Buddleia globosa, of similar dimensions.

"Were the Rose beds laid out recently?" I asked.

"Yes," rejoined Mr. Pool, "last winter only. The varieties are limited to choice Teas. Caroline Testout does the best of all. We go in largely for it, and are clearing out La France, as, in our opinion, it is much inferior to Caroline Testout. The Roses are protected by four handsome Yews. The wall which divides the Rosery from the main flower garden was only added in January, taking the place of a Myrtle hedge."

Before we proceeded to the new terrace, close to the Castle, which was made about three years ago, I paused to admire half a score of marble urns from Italy, and Mr. Pool, pointing to some thriving specimens of Euonymus, remarked that it is quite at home close to the water.

"As to the bedding," he continued, "there are eight beds, in pairs, containing Geranium Madame Crousse, with dot plants of Cyperus alternifolius, and Sutton's Fairy Queen Begonia, with dot plants of Ruby King Fuchsia. Of the eight large outside beds, four contain Coleus Verschaffeldtii, and an outer ring of tuberous-rooted Begonias, of mixed colours, with blue Lobelias for edging, and dot plants of Fuchsia Ruby King. The four opposite beds have, in the centre, Stachys lanata, with fibrous-rooted Begonias, edged with Pyrethrums, the dot plants being Beauty of Carlisle Fuchsias. The number of Begonias used is about two thousand."

"You have a grand Rose on the south wall."

"Yes; it is Gloire de Dijon, which, with Cheshunt Hybrid and W. A. Richardson, are the Roses that do best on the walls. But we have done well with these all through. Practically, we cut flowers during the entire winter from the Pink Monthly."

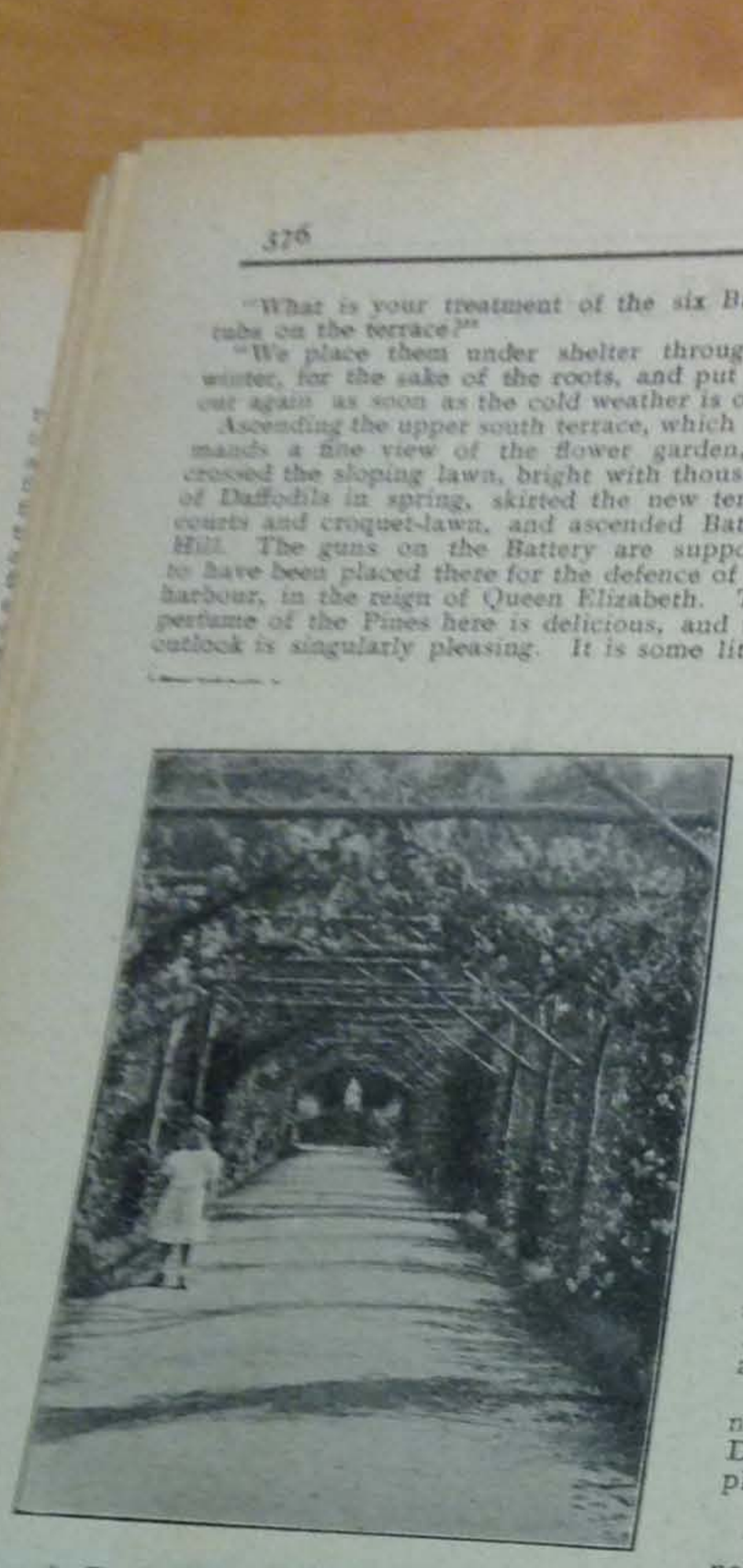
BROWNSEA CASTLE, POOLE HARBOUR.

The bedding depicted here is explained in the letterpress above. Geraniums, Coleuses, Fuchsias, and Begonias are the subjects principally employed. Of the latter, about two thousand plants are used.

"What is your treatment of the six Bays in tubs on the terrace?"

"We place them under shelter through the winter, for the sake of the roots, and put them out again as soon as the cold weather is over."

Ascending the upper south terrace, which commands a fine view of the flower garden, we crossed the sloping lawn, bright with thousands of Daffodils in spring, skirted the new tennis-courts and croquet-lawn, and ascended Battery Hill. The guns on the Battery are supposed to have been placed there for the defence of the harbour, in the reign of Queen Elizabeth. The perfume of the Pines here is delicious, and the outlook is singularly pleasing. It is some little



A Pergola at Brownsea Castle.

distance from the Castle to the kitchen garden, which not only contains all the glasshouses, but is remarkable for a splendid display of flowers. On our way we looked into St. Mary's Church, a small but attractive building, with some nice stained-glass windows, and some very fine oak carving, while further on is a tiny island, with foliage plants, and Osmunda regalis, Nymphæa alba in the water, and Bamboo (Metake) and Pampas Grass along the banks of the waterway to the lake.

The whole of the island is more or less clothed with Rhododendrons, and, when in flower, they must, indeed, have been a magnificent sight. The kitchen garden, well sheltered from the strong winds, could not easily be surpassed either for situation or for beauty. Facing the entrance is a border nine feet wide on each side, and over three hundred feet long, with trellis on the left side.

"The poles of the trellis," said Mr. Pool, are nine feet high, and the trellis itself about x feet. Eventually, the trellis will be all vered with creepers."

"Then it is quite new?"

"Both the border and the trellis were planted year, and for rapid growth on the latter used common Hops, Cobæa scandens, ymukle in variety, Crimson Rambler Roses ng others), the creeping Vines, Polygonum rbuanicum, and Tropæolum speciosum."

"Can you give me an idea as to the number me of the plants in the border?"

"There are one hundred and fifty Hollyhocks of them nine or ten feet high, and quite on disease), one hundred Phlox, and ndred Cactus Dahlias, and Montbretias, ums, Carnations, Solidago, and mas Daisies, all in quantity. I should explain that we arrange to have the border in flower from July to September."

"But you have a certain amount of spring bedding?"

"Yes, we go in largely for Wallflowers, of different colours, in masses, Polyanthus in variety, and Myosotis. Among the Wallflowers we work in many Tulips and Narcissi. In this border here we sow a number of annuals, to assist in making a display until the permanent herbaceous plants fill out of their own accord."

"I observe that you have clumps of Lavender at intervals."

"They were planted in order to obtain the effect of the grey foliage—a colour which you do not get in flowers. But you will see more Lavender presently."

Passing some frames, I inquired the purpose for which they are employed.

"Chiefly for Cucumbers and Melons, and Violets in winter. The Cucumbers are Telegraph and Rochford's, and the Melons, Blenheim Orange and Hero of Lockinge. I may mention that all the potting soil has to be imported, because we have none sufficiently good on the island."

"How long is your continuation pergola?"

"Three hundred feet long, ten feet wide, and nine feet high. It was commenced three seasons ago, but was only finished last winter. In the middle is a Maypole-like arrangement for creepers. On the pergola are Clematis Jackmanni, and Roses—Dorothy Perkins, Carmine Pillar, Felicité Perpétue, Crimson Rambler, Blush Rambler, Longworth Rambler, and Reine Olga de Wurtemburg."

"The growth of the Roses is wonderful. I should not have been surprised if you had told me that they were planted six or seven years ago."

"On each side of the pergola, in a border nine feet high, are Pæonies, Michaelmas Daisies, Delphiniums, and Phlox in variety, with other plants, which are also in the new border."

"Another feature is your Apple arch?"

"Yes, and you may think it worth while to note that all the Apple trees are on wires trained to gas-piping. The archway is just over three hundred feet long. The Apples, though only in the third year's growth, meet over the top of the arch, and, in some cases, overlap. The varieties, in blocks, include Blenheim Orange, Early Hornet, Red Astrachan, Early Julian, Devonshire Quarrenden, and Cox's Orange Pippin. Between the trees is a grass path. All the Apples here are dessert varieties."

"And the fruit seems about as thick as it could be."

"We escaped the frost this year, so far as Apples are concerned, but, unfortunately, nearly all the Pears were nipped by it. Our best varieties of Pears are Beurré Bachelier, Marie Louise, Doyenné du Comice, Louise Bonne of Jersey, Jargonelle, and Williams's Bon Chrétien. We had a wonderful Apple crop last year. At the back of the arch is a row of Plums, of which the crop is exceptionally good this year. In fact, it is quite a breakdown crop. The varieties are Victoria, Greengage, and Magnum Bonum."

"You have a considerable plantation of young fruit trees?"

"They were put in three years ago last autumn, and consist mainly of bush and standard varieties—standard at the back, and bushes in front. The varieties include, among the one hundred trees planted, Alexandra, Alfriston, Cellini, Lord Grosvenor, Bismarck, and Warner's King. The idea in forming this plantation on the north side of the wood was to have the trees to flower a little later, so as to escape the frost."

Then once more the perfume of sweet Lavender filled the air about us, and I realised that we were in a Lavender walk.

"The hedges of Lavender," said Mr. Pool, replying to my inquiry, "are nearly a quarter of a mile in length. Lavender, apparently, loves this soil. All we have to do is to stick it in the ground, and it flourishes. I we cut it very hard

when it is in full bloom, it is a about in the garden because of the we like, we can get a second crop of September, by cutting the first

"How many Strawberries do you

"In pots we have about four we began to gather about the The outdoor crop was very good, though weather, which affects this sandy season rather short. The varieties Royal Sovereign—which we also Joseph Paxton; also a row of Late

"Are Chrysanthemums a feature

"We grow about three and singles only, but the varieties for useful purposes, such as house and pot work. We do not make a ting novelties."

"Vegetables, I conclude, do well in

"Some kinds. The Dwarf Beans the first week in July, and we have nice bed of Onions, spring sown, boxes and planted out. We find this method of securing good bulbs. The are Ailsa Craig, Bedfordshire Champion, James's Keeping. We have been pulling for six weeks past. Exonia is one of the early varieties, and Fidler's Express The other varieties are Daisy—a good early—Ne Plus Ultra, British Queen, and of Albany, for main and late crops."

"Does the soil suit Peas?"

"No; it is marvellous that they do We have to treat them specially, and use a tity of natural manure, including some artificial I believe in using a little superphosphate sowing time, and again when the stems are in. The soil is too sandy for Asparagus, and does not thrive as I should like to see it."

"And Potatoes?"

"The earliest Potatoes, planted without tection, were dug up on April 20th. The variety is Sutton's Ninetyfold, the earliest we can get outside."

"You have Peaches out of doors?"

"Yes, and they seem none the worse for ting out. The varieties are Walburton Admirable and Early Rivers."

Flower Borders in the Kitchen Garden at Brownsea Castle.

Entering the houses, Mr. Pool mentioned that he had just

years ago. There is no heat in this house, in which they are grown. With regard to Peaches, our late house comes first. The varieties here are Chancellor, a very good Peach, and Sea Eagle. Last year we had Peaches weighing fourteen ounces each. In the third Peach house we have Dryden Nectarine and Walburton Admirable and Late Admirable Peaches, which I do not think can be excelled for usefulness."

"When was your Muscat house planted?"

"Two years ago. We are doing away with black Grapes, and substituting Muscats. The next Vinery is a mixed house, and the Grapes include Alnwick Seedling, Black Hamburgh, Lady Downe's Seedling, and Black Alicante."

"You have an excellent specimen of the Tobacco plant in this Vinery."

"Yes, it is from eight to ten feet high. It was self-sown, and it blooms all through the winter. Here, too, we have a useful collection of Tree Ferns and Palms, which we transfer to the flower garden in July. The first Peach house is in the centre of the range, and the varieties grown are Gros Mignon, Waterloo, and Hale's Early. A Royal George tree, which was moved last autumn, when the leaves began to turn colour, has a big crop. In the remaining Peach house are Noblesse, Prince of Wales, and Early Rivers Nectarine. About two dozen Tomatoes are grown in this house—Osburton Scarlet and Sultan's Perfection."

"Do you grow many varieties in the plant house?"

"This house is used principally for growing plants for furnishing the Castle all the year round. Trained to the roof are Plumbago capensis (blue and white), and other greenhouse climbers. In the stove we have a fine batch of Begonia Gloire de Lorraine."

"It looks as well as it could, also the Caladiums. What are the best varieties of the latter?"

"Rose of Denmark, Chelsonii, Salvator Rosa, and Triomphe d'Exposition. Gardenias we find very useful. I have had these plants for four years."

"Then, you do not follow the practice of throwing them away?"

"No, I keep them, and I have had a large crop every year. We grow a few Orchids, mainly Dendrobiums, Calanthes, Cypripediums, and Oncidiums."

"What about Malmaisons?" I said, as we reached the Carnation house.

"We grow about four hundred. The Malmaison Carnation is Mrs. van Raalte's favourite flower. The varieties are Princess of Wales, Churchwarden, Madame Trelawney, and Duchess of Westminster. We have been cutting from this house three or four times a week since January—from four flowers a week in January to over a hundred a week in June. I have cut this week more than two hundred to send to London."

"Do you know how far the range extends?"

"Over three hundred feet, and it is one span. I should like you to see the lakes, which cover from five to six acres."

But this pleasure I had to forego, and I had not sufficient time remaining to do more than glance at some admirable specimens of Magnolia floribunda and M. macrocarpus, and Picea; also some Dracænas under the clock-tower, which plants appear to do all the better for being stood out in winter.

"How large is the staff employed in the gardens?" I asked, as we waited by the water for the electric launch which was to convey me back to Poole.

"Eight. But there are about a hundred and fifty people on the island. All the men are employed by Mr. van Raalte. Both Mr. and Mrs. van Raalte take the greatest interest, not only in the gardens, but in everything and everyone in Brownsea."

"Where did you commence your own career?"

"I am a Somersetshire man, and entered the gardens of Colonel Mogg, at Farrington Gurney, when I was fifteen, and I have since steadily worked my way up to my present position. I have been head gardener at Brownsea for upwards of four years."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 159.—TUB GARDENING.

DEAR KATE,—The herbaceous border, which is so beautiful in June and July, is apt to look a little sad after the blue Delphiniums and white Foxgloves are over.

But, if you have plenty of Cactus Dahlias, early-flowering Chrysanthemums, perennial Phloxes, Pentstemons, and Gladioli, there will still be enough bright colour in the borders, and the Michaelmas Daisies will look very well as a delicately-tinted background, to throw up the metallic shades of the Dahlias, and the splendid glowing carmine of the Gladioli. In the bog garden, too, the intense scarlet of Lobelia cardinalis is conspicuous, with tall spikes of bloom; but in the light, dry soil here, we only grow this plant in tubs, sunk to the rim in the grass bank, where it has a brilliant effect, and does very well, the tub only needing an occasional addition of water in dry weather. I also in the borders, and the contrast between the two in July was great, for the poor things which had to endure the drought quite shrivelled up, whilst the plant in the tub was as happy as possible—I send you its photograph.

The pink herbaceous Spiræas palmata and venusta are very bright in colour, and most effective when growing in tubs, where they do extremely well, and we also grow the large-flowered kind of Marsh Marigold (Caltha palustris grandiflora) in this way, as well as the double variety. Both of these plants make a wonderful golden glow when in bloom, with their shining yellow petals in profusion, and nothing can be easier to manage when once planted.

Another British plant which we grow in a tub is the yellow Flag (Iris pseudo-acorus), and I really had no idea that it was so handsome

SPIRÆA ASTILBOIDES IN A TUB.

Being a moisture-loving plant, it is possible to grow the Spiræa to perfection in a tub, or some such receptacle in which soil can easily be kept moist.

feel sure that if I lived in a city, and had no garden to speak of, I should take violently to tub-gardening on the leads, balconies, the roof, in the back garden, or in any corner in which a tub could stand; for water gardens have such a fascination for us, but, fortunately, not for cats, which leave them severely alone, as they hate moisture, and, of course, water.

Then, tub gardening, when once established, is very little trouble, beyond the necessary filling up of the water once or twice a week in hot weather; and the evaporation from the tubs cools the air, and thus helps to make a delightful corner as a retreat from the stifling air of a town house in summer.

We may, of course, grow almost anything in a tub, from an Apple tree to a Daisy; but, just now, I am speaking of bog plants, and those which need extra moisture, although they are often grown in ordinary borders. The whole family of the Spiræas, for instance, luxuriate in a damp spot, and look miserable in a dry border; we grew a fine clump of Spiræa japonica astilboides in a tub this year, and some until this year, for the Irises we pick in a marshy field near here are not half the size of those grown in our tubs, which enjoy the rich soil extremely, and grow nearly a yard high, with plenty of blossoms, which are good for cutting, as well as effective in the tubs. With them we grow Osmunda regalis, the flowering Fern, and plants of Hart's-tongue Fern (Scolopendrium vulgare) look very well round the edge of the tub, to trail over the sides.

There are various ways of covering the wood, if the tubs are not let into the soil; the golden fringe of Creeping Jenny (Lysimachia nummularia) is beautiful, hanging over the edge of the tub, which it quite hides in this way, for it mightily enjoys plenty of moisture. Virgin cor placed round the tubs, rockwork (in whic Ferns and Alpine plants can grow), or plain dark green paint only, may be used to hide th wood, or pot plants can be arranged in fro of it, whilst yet another plan is grow climbers (Nasturtiums, Canary Creepe Clematis, etc.) below the tubs, and tra these on wire netting, so as to cover the

# THE GARDENS AT TRINITY COLLEGE, CAMBRIDGE.

**Interview with Mr. L. F. Pope.**

A GREAT many people are familiar with the features of the gardens at Trinity College, Cambridge, which are thrown open to the public both for inspection and for flower shows. But only the few obtain access to the private portions, such as the Master's garden, the Bowling Green, and the Fellows' garden. I had the privilege, on a brilliant afternoon this summer, of seeing the whole of the extensive and beautiful demesne under the charge of Mr. L. F. Pope. In all the gardens the flower borders are the dominating feature, and at the time of my visit, most of the biennials and autumn-sown annuals were, as Mr. Pope said, looking their best. We first turned our attention to a shady border in the Bowling Green garden, running the length of the lawn on one side, while opposite to it, on the sunny side, is a companion border. The fine effect on both sides is heightened by the perfect appearance of the turf in the centre. Shade is secured by a background of Limes, twenty-five feet high, through which only gleams f light are obtained.

### SUBJECTS FOR A SHADY BORDER.

"In the shady border," said Mr. Pope, "room is found for the Brompton Stock, Canterbury Bells, Calceolaria amplexicaulis, Foxgloves, Delphiniums, Veronicas, Begonias, Campanula persicifolia and latifolia, Sweet William, Aconitum nepalensis, and Fuchsias. These and others revel in a shady situation. Later on they will receive additions in the shape of Michaelmas Daisies, Phloxes, and Nicotianas chosen for their preference for shade. In this border there are always, even in the hottest weather, fresh-looking flowers, and the contents continue to bloom until the middle of October.

"The chief contributors to the border on the sunny side are annuals, about forty varieties being sown every autumn. The principal of the hardy kinds are Nigella Miss Jekyll, Viscaria cardinalis, oculata, and cærulea; Lobelia Catchfly; Nemophila insignis and maculata; Candytuft, Venus's Looking-glass, purple and white; Cornflowers, Hawkweed, Shirley Poppies, Larkspurs in eight shades of colour, Linum rubrum, and Silene ruberinosa, which is superior to pendula compacta. The protection of frames is given to some of the subjects during the winter, including Eucharidium grandiflorum rubrum and album; Godetias, Saponaria calabrica, Leptosiphons in variety, Kaulfussia amelloides, Oxyura chrysanthemoides, and Virginia Stocks."

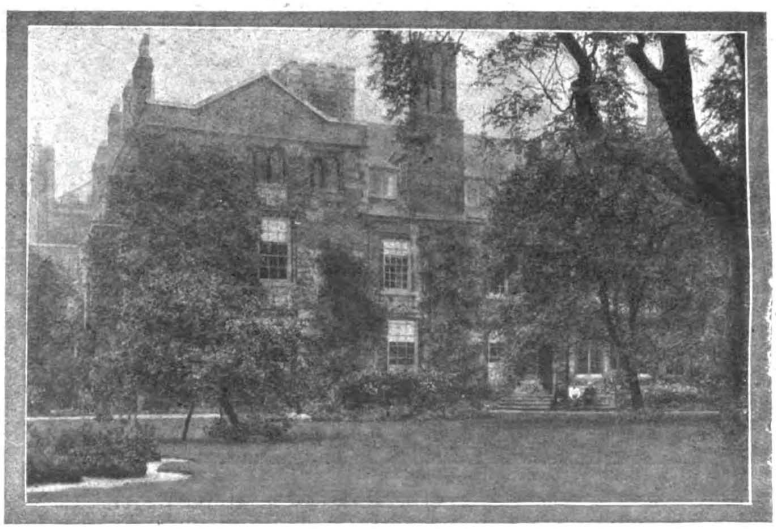
"The Eucharidiums are exceptionally attractive, and a striking contrast is presented between the purple flower and the deep green of the foliage of the Candytuft. I see that you go in for large masses of the white variety."

### THE PREVAILING COLOUR.

"Yes, that is Webbs' Snowflake. But everywhere we use large masses. Other subjects are Salvia Salarea, whose rose-coloured bracts are very ornamental; Pentstemon Southgate Gem, which has stood the winter well; Centaurea

MR. L. F. POPE.

depressa, which closely resembles the ordinary Cornflower; Pinks in variety; and a seedling Carnation, Grenadine, scarlet."



THE MASTER'S HOUSE, TRINITY COLLEGE, CAMBRIDGE.

"In this border scarlet is quite the prevailing colour."

"A large batch of the Rose Campion (Agrostema atrosanguinea) is very effective. The standard Roses at the end include Caroline Testout, Hugh Watson, Frau Karl Druschki, Grace Darling, and Comte de Raimbaud. Maiden's Blush is also grown on the shady side, and I find it does particularly well in a mixed border."

"What is the difference in the length of the borders?"

"The shady border is two hundred feet long, and the sunny border two hundred and thirty feet. The lawn is used as a bowling green."

### THE MASTER'S GARDEN.

We then passed into a veritable old-world garden. This is the secluded preserve of the Master, and it contains two or three interesting trees. One is the first Ailanthus brought to England, and another the Wellingtonia planted by Queen Victoria in 1847. These may both be seen from the apartments of the King and Queen, for whose sole use a suite of rooms is set apart at The Lodge. The Holly is worthily represented by a fine specimen of Ilex aquifolium. Roses and Pinks are largely used in the beds, the Pinks being propagated by slips containing several growing points, in preference to single cuttings.

"In the shade," continued Mr. Pope, "the cup-and-saucer varieties of Canterbury Bells do well; they are a great improvement on the old forms. We grow Canterbury Bells in pots, the rose and the white, but not the blue, the latter colour being ineffective under artificial light. Clarkias are also grown in pots, Salmon Queen, Fireball, and elegans alba. The succession lasts over several months. I find that the vital point to prolong the flowering period of annuals is to keep the seed pods regularly picked off."

Leaving the Master's garden, we paused near the Willows on the banks of the Cam, and spent some time in the avenue of Limes immortalised by a verse in Tennyson's "In Memoriam." I asked Mr. Pope when it was planted.

"The portion of the avenue above the bridge dates from 1717; and the portion below it from 1672. The portion below is getting rather shabby, and we are trying to renovate it. Instead of planting trees raised from suckers, I am planting seedlings of the Tilia platophyllus variety. The avenue is continued in the Fellows' garden, but is there planted with Elms of a more recent date, and of more stately appearance."

### THE FELLOWS' GARDEN.

When I had grasped the beauty of the entrance to the Fellows' garden, which is also known as the Round About, owing to the arrangement of the outer walk, I began to enquire about details.

"The extent of the garden is five acres," rejoined Mr. Pope, "and at all periods of the year no pains are spared to make it bright. Thousands of Tulips, Narcissi, Snowdrops, and Aconites are planted in the grass, and the Tulips are much admired in May. I always put in the Tulips I have over for bedding in the previous year. I do the same with Daffodils, and any surplus bulbs. We use scarlet Tulips, Macrospila and Gesneriana; also Bouton d'Or for yellow, and Princess Marianne for white."

"I notice in one of the beds you turn the English Iris and the Iceland Poppy to account."

"They give us together various shades of light and dark blue, orange, and yellow. There is no difficulty in growing the Poppies. They are sown in July, and put out in October when the

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Iris are planted. Here is the Rosery. The plan of planting is three of each variety as standards or dwarfs. I will name some of the best: Mrs. Aaron Ward, M. Paul Lede (a beautiful carmine, shaded with yellow), Le Progres, Peter Blair (yellow changing to creamy-white), General McArthur (a fine shade of crimson), Madame Segond Weber (a fine pink), Laurent Carle (deep carmine), and Mrs. W. J. Grant. The pillar Roses are Aimee Vibert, Carmine Pillar, Leuchstern, Wallflower, Una, and Polyantha grandiflora."

#### EFFECTIVE COMBINATIONS.

"The deep blue of the mass of Canterbury Bells beyond heightens the effect of the Roses."

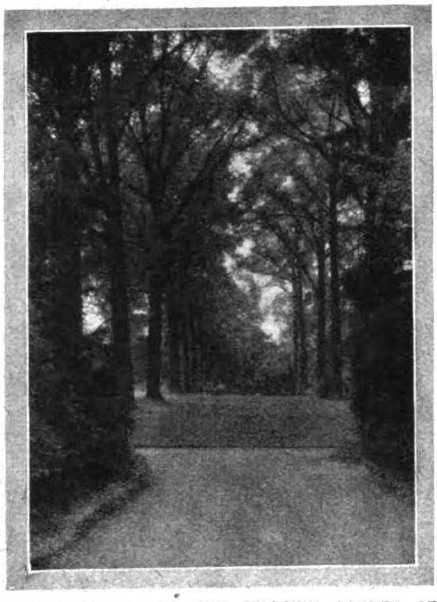
"Undoubtedly. Blue is always a good colour to associate with Roses. The border close to the Rosery is very hot and dry, and the contents are chosen accordingly. Dictamnus fraxinella is very effective, and Calendula Golden Crown is quite at home; so is Nigella Miss Jekyll, mixed with yellow Iceland Poppies, and Geum Mrs. Bradshaw. In this garden, you will observe, there is no question of formality, but the primary object is to secure colour effect and harmonious combinations. A rather fine combination is made up in a bed of pink, consisting of Delphiniums (Blue Butterfly), Ivy-leaf Geraniums Mrs. G. Turner, Veronica Andersonii, and Lobelia White Gem."

"When does your display in the rockery begin?"

"Except in the depths of winter, we have something all the year round. Amongst the very numerous varieties you may care to note is Ramondia pyrenaica, which likes to be wedged in the stones, and is one of the best of its species. Helianthemums are largely used, and so is Dianthus deltoides. Two pretty Pinks are represented by Dianthus Napoleon III. and Cyclops. Campanula garganica hirsuta and Erodium trichomani folium are good, and Primula cortusoides is a pretty rose variety. Viola gracilis and Coronilla cappodocica, Pentstemon heterophyllus, and the shrubby Potentilla help to make a show. On the top of the rockery varieties of Cistus are thriving, and in the background Spiræa aruncus and Ferns in variety are useful."

#### A WONDERFUL BORDER.

"Beyond the rockery is quite one of the features of the garden, a double border with a semi-shady side and a hot side. These borders, with the trees as a background, resemble a drive through a wood. Many of the varieties on the half-shady side are the same as in the shady border already described; and in addition include masses of Begonia martiana, with a groundwork of white Alyssums, a pink and white combination. Just at this point the Mock Orange and a great display of Foxgloves furnish a striking display of colour, and further on Sweet Peas are in bloom, the two varieties used being Florence Nightingale and Gladys Burt. Campanulas and Canterbury Bells are quite a special feature; and I particularly recommend for its wealth of bloom Campanula Portenschlagiana. The blue Pansy is Emperor William, and the other Giant White. On the hot, sunny side, Centranthus ruber and Dianthus Heddewigii are worth mentioning, and so is Salvia horminum, with its purple bracts. I can also recommend for a hot border Gazania splendens; and amongst hardy annuals the Lobelia Catchfly deserves recognition. The stems are quite glutinous at intervals, and the foliage and flowers very attractive. Sweet Peas King Edward VII. and Dorothy Eckford, Antirrhinums Daphne and White Queen, Clarkias Purple King, the York and Lancaster Roses, Candytuft Snowflake, and Sweet Williams, all do well in this border."



THE ENTRANCE TO THE FELLOWS' GARDEN AT TRINITY COLLEGE.

"And Pentstemons also?"

"Some of the Pentstemons are old plants, which have stood the winter and flowered early; the others are autumn-struck cuttings which flower much later. The cuttings should be taken about July, stopped once during the autumn, and put out in the spring. Otherwise, the flowering season is very late. The variety is Southgate Gem."

#### THE HUNTINGDON ELM.

"The Fellows' garden has also, you see, its wild portion, which in the spring is full of bulbs. Near the wild garden is our most notable tree, the Huntingdon Elm. It was planted in 1814, and has the appearance of a tree three hundred years old. Some of the branches are sixty feet in length, and are supported by props, and the stem of the tree is sixteen feet in diameter, four feet from the base.

"There remain the courts. The climbers in New Court are confined on three sides to Ivy, while the remaining side is decorated with flowering shrubs, such as Jasminum nudiflorum, Ceanothus Veitchiana, Prunus triloba, and Forsythia suspensa. All the early-flowering shrubs should be pruned after they have flowered in the spring. In Nevill's Court, with the library at the end, the principal feature is the large lawn of about three-quarters of an acre. A few years ago this lawn was a mass of daisies and other weeds, but an application of sulphate of iron, followed by a dressing of sulphate of ammonia, effectually burnt out the daisies. The plantains require several applications, and in the case of very large ones and deep-rooted weeds such as dandelions, I find it expedient to use one of the patent weed eradicators. The Old Court is the largest quadrangle in the kingdom, and covers two acres. The chief floral decoration is in the centre, where the fountain is located, with masses of the Geranium Paul Crampel, and an edging of Dandy. This bed was filled in the spring with yellow Tulips and blue Myosotis. On the south wall of the court the Tamarisk is pruned back hard to prevent it from flowering. It is grown for the sake of the feathery foliage. The chapel beds, five in number, are planted with Pentstemons Southgate Gem, Alyssum Little Dorrit, and blue Lobelias Crystal Palace compactum."

"How long have you been in charge of the gardens?"

"Four years. Previously to that I was with Mr. Chivers, of Histon; and my experiences include some time at Loudwater House, Rickmansworth, and upwards of four years with Colonel Craig at Carlton Hall, in addition to posts in Surrey and Dorsetshire."

ALFRED WILCOX.

ONE OF THE BORDERS IN THE FELLOWS' GARDEN AT TRINITY COLLEGE.

"Horticulture in the United States" will be the subject of next week's interview, which is with Mr. J. C. Vaughan, Chairman of the National American Council of Horticulture.

## HOLLYHOCKS.

PEOPLE who look upon Hollyhocks solely from a perennial standpoint, are generally those who fail with them. To grow them at their very best, to have tall spikes roped with flowers from top to bottom, one must remember that two things are essential — young plants, and a change of soil.

Owing to their gross feeding habits, if plants are left on the same patch of ground several years in succession, they quickly impoverish the soil, and deteriorate, and what is of frequent occurrence, are attacked with the dreaded rust disease, a cure for which is almost impossible. It is best, therefore, to guard against this state of affairs, and grow on young plants every year to take the place of others, taking care to give them fresh position and new soil, in which manure forms a part. It is easy to obtain young plants, for the single form seed freely, and seedlings spring up.

GERSHOM.

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MR WILLIAM POPE,
Gr. to the EARL OF CARNARVON,
Highclere Castle.

3 acres in extent, but half a century ago it ceased to be a lake, and is now well drained, the water running into a well and the overflow into the woods. On this portion I have no difficulty in procuring first-rate vegetables for home consumption or exhibition, such crops as Cauliflowers, Peas, Runner Beans, Turnips, Celery, Leeks, &c., succeeding splendidly, but Carrots will not grow after the thinning stage. But I have not the slightest difficulty in growing Carrots in another part of the gardens, and I have a grand lot without the least sign of wireworm amongst them. That the soil has been cultivated so many years does not hinder the Carrot in the least, yet some people think that they require fresh soil each year. My greatest difficulty is that I am situated so far North. Crops are quite a fortnight earlier in the South than here. I have a difficulty in getting Ailsa Craig Onion and Autumn Giant Cauliflower up to exhibition standard, and more especially so the last two seasons."

MR. S. MORTIMER.

There must be very few visitors to the horticultural exhibitions who have not become familiar with the collections of Cucumbers, Tomatos, &c., from Mr. Mortimer, of the Rowledge Nurseries, Farnham. At the earliest shows in the year, including that held at the Temple, Mr. Mortimer usually shows produce that leaves nothing to be desired from the standpoint of cultivation. Not only this, but he has paid much attention to the raising of seedling varieties, and he has been successful. Tomato "Winter Beauty," raised by Mr. Mortimer, is an exceedingly useful variety to the gardener, and as shown by many of our correspondents during last winter, it comes into bearing very quickly. Mr. Mortimer writes :—

"'Purley Park Hero' was the first seedling variety of Cucumber I raised, and it is more than twenty years ago that this received a First-class Certificate from the Royal Horticultural Society, and it is still in cultivation. Since then I have raised some ten or twelve varieties, most of which have been Certificated by the Royal Horticultural Society's Fruit and Vegetable Committee, and all are in cultivation at the present time. Among the best of these are 'Matchless' and 'Sensation.' All my Cucumbers are pedigree varieties that have been worked down from an original strain, and this I find is the only way by which to keep a pure strain. One of the best things I have ever raised is Tomato 'Winter Beauty,' the pure stock of which has given great satisfaction to cultivators.

MR. W. POPE.

Many an exhibitor of vegetables has found a formidable opponent in Mr. W. Pope, gardener to the Earl of Carnarvon, Highclere Castle, near Newbury ; and readers of the *Gardeners' Chronicle* will remember him as a writer of one of the weekly calendars in these pages, to which he is still an occasional contributor. Mr. Pope is an excellent cultivator. He writes :—

"I do not know that I can say much about myself that would be of interest. I commenced to exhibit vegetables soon after taking my first head place at Harold Wood, in Essex, in 1875, taking a second prize for a collection at Brentwood in, I think, the following year. I next went to Bishops Waltham, in Hampshire, and exhibited pretty regularly at Southampton for several years with varying success until I entered on my present charge at Highclere in the autumn of 1883. There is no doubt that exhibits of vegetables attract more attention from the general public than was the case twenty years ago, for which the more attractive and tasteful methods of setting up are mainly responsible. But there has been possibly some advance in cultivation, and certainly there is a great improvement in many varieties, notably Potatos, Onions, Tomatos, Peas, and Beans. I am very glad to note the tendency is to discourage the 'setting up' of large, coarse vegetables, and that more attention is being paid to high quality."

MR. DAVID THOMSON, SR.

There is no gardener in this country, whether Scotsman or not, but respects the former gardener at Drumlanrig, now in his eightieth year, and living quietly near to Dalkeith, in perfect health, and as keenly fond of gardening as he ever was.

Mr. David Thomson was born in 1824, in the island of Mull, to which place Sir Walter Scott had sent his father in 1817. He left home for apprenticeship at Carstairs House in 1837, under the late Mr. Ross, who was a very smart man and an excellent cultivator ; from there he went to Bothwell Castle in 1840, and was under the veteran Mr. Turnbull for four years. Bothwell Castle gardens were then among the best gardening establishments in Scotland, and certainly Mr. Turnbull was one of its best gardeners. They were famous more particularly for the culture of Heaths and for hybridising. In 1844 he went to be under that prince among horticulturists, the late Mr. Maruschi, in the Regent's Park, London. He next removed to Wrotham Park Gardens, and was two years foreman there under his brother, the late Mr. Wm. Thomson, "King of the Vineyard."

Mr. D. Thomson was head gardener first to Mr. Drummond, head of the banking firm at Charing Cross ; then in 1850 he was gardener to the late Captain Trotter at Dyrham Park. He burnt all the heavy soil in the gardens at Dyrham Park, and grew the finest vegetables, after the burning, he ever produced. In 1858 he went to Archerfield, which gardens he rendered celebrated for flower gardening and fruit culture. His Pines and Grapes grown at Archerfield were often seen on the exhibition-tables, where they were usually successful in winning prizes. In 1868 he was appointed gardener to the famed gardens of Drumlanrig Castle, proving there in every department his skill and experience as a gardener ; thence he retired in 1897.

From each of his situations he had tempting offers made to remain ; he has been awarded the Niel Prize, the Veitch Memorial Medal, and the Victoria Medal of Honour. On leaving Drumlanrig he was presented with a magnificent silver casket and illuminated address by seventy-six of his foremen, all of whom he had placed in good situations scattered all over the world.

He was a writer for the *Journal of Horticulture*, and for several years wrote constantly for the *Scottish Gardener* (from 1854 till 1870), and edited it part of that time. He edited *The Gardener* from 1871 to 1882, when as the last of the monthlies it was discontinued. He was author of a treatise on *The Pine-apple, Fruit Culture under Glass*, and the *Handy Book of the Flower Garden*.

His only son, Mr. David W. Thomson, is a worthy representative of a notable horticultural family, and is highly esteemed and respected as a prominent nurseryman in Edinburgh.

MR. H. W. WARD

needs no introduction to readers of the *Gardeners' Chronicle*, although his portrait has never appeared hitherto in its pages. Mr. Ward was a frequent and valued contributor during the quarter of a century he was at Longford Castle, and since his removal from that place to Rayleigh, in Essex, where he has established a flourishing market nursery, has continued to do so. The following notes are interesting :—

"One of my specialities during the twenty-five years I was head gardener at Longford Castle, Salisbury, was the cultivation of choice vegetables. Having an abundant supply of good stable-manure at my disposal, and being provided with ample labour, I had three layers, about 6 inches thick each, trenched into a portion of the kitchen-garden every year, the trenches being from 2 to 3 feet deep and the same width ; the bottom of the individual trenches, being broken up with a digging-fork, received the first layer of manure, the other two were incorporated with the soil in the process of trenching. No wonder, therefore, that ground thus treated should produce satisfactory results. Scarlet-runner Beans attained a height of from 15 to 25 feet, supported by stout Ash-stakes braced together with others placed longitudinally at about 6 feet from the ground and secured in position by cross-ties made of tarred string, and these bore heavy crops of fine Beans from bottom to top, the produce being gathered by the aid of a long pair of steps. Veitchs' climbing French Bean (raised and grown by me for many years before being distributed by Messrs. Veitch & Sons, of Exeter), attained a height of from 7 to 8 feet and was heavily cropped with long straight Beans of fine quality in ground prepared as above. The same may be said of Peas and other crops. Owing to the annual application of soot as a top-dressing prior to sowing seeds of Onions, Turnips, and Parsley, and the transplanting of Lettuce plants, my crops never suffered from the attacks of the Onion-maggot and other pests.

"During the years 1882 up to 1886 (inclusive) I was a frequent and successful exhibitor of collections and single dishes of vegetables at the Royal Horticultural Society's shows, then held at South Kensington Gardens. I secured 1st prize, offered by Messrs. Sutton & Sons, for four dishes of Peas two years in succession, the dates being May 23, 1882; and May 22, 1883, and June 26 same year. I also carried off Messrs. Suttons' 1st prize for a collection of Potatos on July 24, 1883 ; I was 1st for three dishes of Peas, June 24, 1884 ; 1st for two dishes of Beans, and 1st for Messrs. Carters' Peas at Chiswick, July 3, 1884. At the Royal Horticultural Society's Provincial Show, held in Liverpool on June 29, 1886, I took 1st prize offered by Messrs. James Carter & Co. for four dishes of their Peas ; also 1st for three dishes of Peas in the Royal Horticultural Society's class.

"During a period of nearly twenty years I have assisted to make the awards in the special vegetable classes at Shrewsbury, having for my colleagues first the late Mr. Thomas Laxton (once), the late Mr. Pownall (several years), Mr. Lambert (Powis Castle) and Mr. A. Dean during the last five or six years, all being able, painstaking and conscientious judges, and with whom it has been a pleasure to work. The vegetables, like all other exhibits at the Shrewsbury Show, are splendid examples of good culture.

"Some twelve years ago I was present at a show held in Cheltenham in September, at which excellent vegetables were staged in great quantity in the individual classes, huge piles being artistically arranged, in some cases by the aid of a pair of steps ; the number constituting a dish not having been stated in the schedule of prizes, dishes were made up thus : 250 Tomatos, 50 Cauliflowers, 30 Cucumbers, 100 Onions, and so on. A very imposing show they made!"

*Bradbury, Agnew & Co., Ld., Printers, London and Tonbridge.*

**Mr. W. Pope.**—We are very sorry to learn that Mr. William Pope, the widely-esteemed head gardener at Highclere Castle, Newbury, the Berkshire seat of the Earl of Carnarvon, has met with rather a serious accident. Mr. Pope was cycling recently, and had the misfortune to fall and break his thigh. At a meeting of the fruit and vegetable committee of the Royal Horticultural Society (of which Mr. Pope is a member and regular attendant) on Tuesday last a vote of sympathy was passed with him, and the hope expressed that he would make good progress towards recovery.



TG, 1903

The gardens were extensive and, as in all great houses, the quality of the flowers for cutting and produce to be used in the kitchens was a matter of great pride. The head gardener in 1895 was William Pope, a fierce man, protective of his territory. He had between twenty and twenty-five men working under him. The walled kitchen garden was a good five acres in size, with a charming orchard beyond it, framed by plum trees whose fruit was famously delicious.

Mr Pope had not only to produce food throughout the year but also to know how to maximise yields and to store it so that nothing should go to waste. Greenhouses lined the south-facing walls to extend the growing season. A vinery, peach house and orangery were heated by a boiler, whilst rainwater was collected from all the gutters. A north-facing fernery provided a collection of different flower species for the Castle and there were roses from the Rose House and more flowers in the designated cutting beds.

The dairy yard lay near the kitchen gardens, and when the family was in town rather than at Highclere, the milk and cheeses were sent up to the London house in small silver churns. These churns are still piled, somewhat haphazardly, in one of the dozens of storerooms in the basement of the Castle. All houses accumulate clutter, and the nooks and crannies of Highclere provide ample room for hundreds of years' worth.

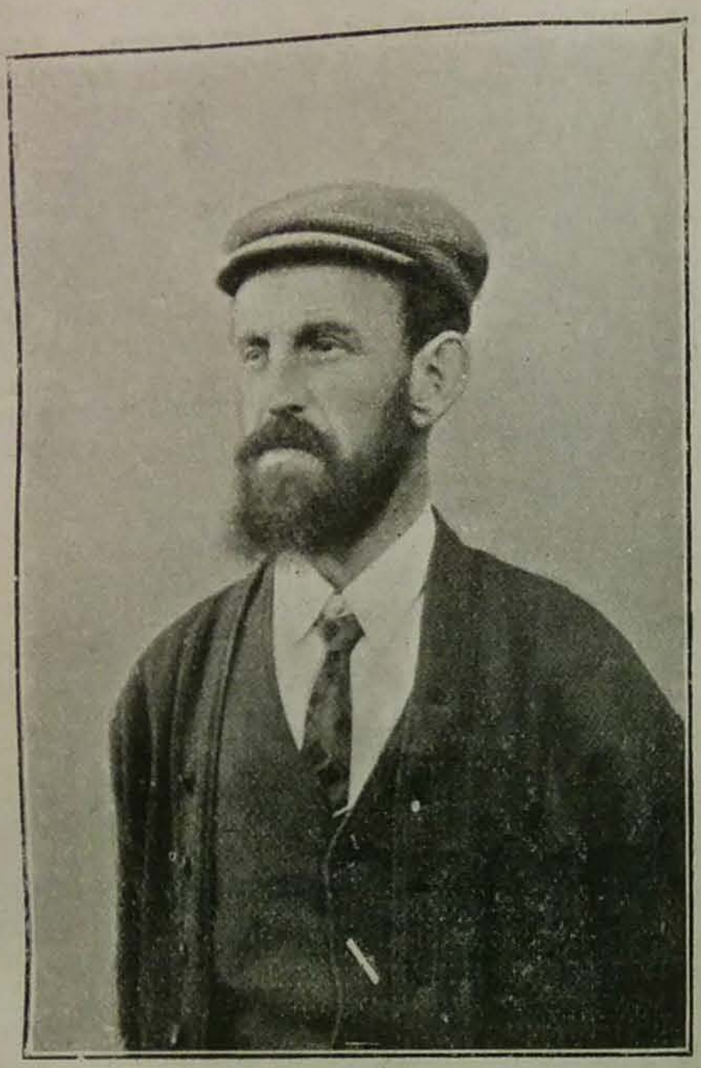
Opposite the dairy was the hayrack for the dairy yard and, next to that, beneath the shelter of the walls of the great kitchen garden, were the chickens. The damp boggy field leading west from the kitchen garden was used to grow potatoes.

Every day, Pope would send his senior gardener, Samuel Ward, to enquire of the cook what was needed. There was an entire family of delightfully named Digweed boys working as Highclere gardeners, and one of them would run up to the kitchens with the fruit and vegetables required.



From 'Lady Almina and the Real Downtown Abbey'.

usually when it is too late to be of any real use, after the disease has actually appeared. Mr. Watkins strongly advocates the employment of artificial fertilisers. "Experience has taught us," he says, "that profitable Potato-growing is closely connected with the ample application of artificial fertilisers, and as the cost is trivial it should be merely a secondary consideration." He adds that "a well-balanced fertiliser, combining all the elements suitable for Potato-growing, viz., phosphoric acid, nitrogen, and potash,



MR. W. POTTLE.

should not exceed twenty-five shillings for suitably manuring twelve hundredweights of seed Potatoes." He also recommends that moulding up should be done when the plants are six inches high, and again when they are large enough to carry a full-sized ridge. The methods recommended by Mr. Watkins might, with advantage, be practised by growers of Potatoes in England, as well as in Ireland. It is to be feared that they are often neglected.

February 2nd.—The owners of unsatisfactory lawns are often puzzled to know what dressing to apply to them, and here the results of some experiments carried out on grass by Mr. John Bayne and Mr. Edward Porter may be of service. They found that if plenty of farmyard manure is available, it may be profitably applied to this purpose, and also that, if it is scarce and expensive, artificial fertilisers may be substituted for it. They advise that the two dressings should be used alternately. The artificial dressing which they recommend consists of one and a-half hundredweights of nitrate of soda, two hundredweights of superphosphate of lime, and two hundredweights of kainit per acre, but if the land is deficient in carbonate of lime, the kainit should be replaced by three hundredweights of basic slag, to be applied in winter. The other dressing should be applied in spring, during the period of active growth. It is excellent for a lawn, and possesses a great advantage for that purpose over farmyard manure, for it is perfectly clean, and, being in the form of a powder which is readily soluble, it disappears after a heavy shower or two. For ordinary grass land it should, as already stated, be alternated with farmyard manure.

February 3rd.—While Virginia Creeper makes an excellent covering for a house, especially in an autumn like the last one, the effect is greatly enhanced if other plants, such as Roses, are grown with it. It must, of course, be prevented from smothering them, but if this small trouble is taken there is no reason why they should not be combined with it. I have seen several houses so treated; they look charming in spring and summer, as well as in autumn. Gloire de Dijon, being a vigorous grower, is one of the best Roses for the purpose, flowering almost continuously, and never clashing with the autumn tints of the Virginian Creeper, as some of the red Roses do.

H. C. DAVIDSON.

# Famous Gardeners at Home.

## No. 175.—MR. W. POTTLE, AT THE GARDENS, BROADLEES, REIGATE.

A STRIKING example of the manner in which a garden can be developed in a short period is afforded in the case of Broadlees, the delightfully-situated residence of Mr. Wesley Marshall, about a mile from Reigate, on the slopes of the original Colley Hill, called Queen's Park since it was purchased, laid out, and given to the borough by Mr. George Taylor, of Margery Hall. Queen's Park, in fact, forms a charming background to Broadlees, which commands a very fine view of the surrounding country. When Mr. Marshall, nine years ago, acquired the fourteen to fifteen acres of which the property consists, there was neither house nor garden, and, accordingly, the former was built, and the latter made, in conformity to Mr. Marshall's own wishes.

Mr. W. Pottle, the head gardener, has only held his present position a little more than eighteen months, but he is, of course, familiar with the circumstances of the case; and on the occasion of my visit, in December, before we began our tour of the garden, commencing at the gate of the lodge at the foot of the slope, he stimulated my interest by giving me a brief sketch of its history.

Ascending the steep incline to the house, we noticed a fine belt of thriving shrubs, while close to the front door are two large beds of Roses containing mixed varieties. All round the wide terrace, from which, on a clear day, it is just possible to get a glimpse of the sea, are flower beds and borders. The house itself is adorned with many creepers, including Crimson Rambler, Carmine Pillar, Homer, and The Bride Roses, Clematis, yellow Jasminum, Ampelopsis Veitchii, Honeysuckle, silver-leaf and green Ivies.

"The borders, I see, are full of Wallflowers. How many plants do they contain?" I asked.

"Nearly a thousand," replied Mr. Pottle. "The varieties are Belvoir Castle and Blood-red. They are edged with white Arabis, Alyssums, and Daisies. Wallflowers are quite a feature with us."

"When do you sow them?"

"Early in May generally, and I prick them out about nine inches apart; then, about October, I plant them in their permanent quarters. The treatment of the Alyssum and Arabis is similar. The only difficulty with respect to Wallflowers arises in the event of disease in the tops, when the flowers are spoilt, but, otherwise, the cultivation is simple enough."

"What do you put in these beds during the summer?"

"Marguerites in the centre, Geraniums Henry Jacoby forming the substantial part. They are edged with Geraniums (Neister's Seedling, white), and blue Lobelias, the object being to make the beds red, white, and blue."

Passing into the conservatory, which is on modern lines, and very tastefully arranged, I noticed a number of large and small Palms, Cocos, Seaforthia, and Latania varieties. Primula obconica, Zonal Pelargoniums, and Salvia splendens, nearly over, were in flower, and here, also, were Maidenhair and other Ferns, as well as a mixed assortment of grasses. The pipes in the conservatory are ingeniously draped with Tradescantia.

"You might," I remarked, "give me the names of some of your favourite winter-flowering Pelargoniums?"

BROADLEES, REIGATE.

"John Gibbons is one of the best scarlet, Hermione, a double-white, and very useful in December; Grand Chancellor (a double dark red), double Jacoby, The Bride (salmon), and the Rev. Atkinson (purple). There are about fifty in all."

"Do you grow the blue Salvias?"

"Yes. I like the form of the red variety better, but the blue flower is taller."

"How do you decorate the conservatory in summer?"

"Chiefly with a mixed lot of Begonias (not named), Fuchsias, Achimenes, Gloxinias, double Petunias, Ivy-leaved Geraniums, Celosias, and Coleus."

"What number of Celosias?"

"About two dozen. I give them summer heat, bring them on, and keep repotting until they are put into 'forty-eights.' When they fill the pots, I feed the plants with a little manurial water. They usually do very well. As you see, there is still one Celosia here, and we have had flowers continuously ever since the summer. We practically make the conservatory, which is on the east side of the house, with a frontage to the south, a show house."

"The extensive tennis lawns are also on the east side?"

"Yes, and they and the kitchen garden are the only portions of the grounds which are on the flat. There are shrubs on each side of the tennis lawns, and further down, on the west of the slope, the herbaceous plants, but we do not go in very largely for the latter."

"What do they include?"

"Solidagos, Japanese Anemones, Phlox, Saxifrages, and Pentstemons; and, later, Dahlias, with some of the Cactus varieties, are used."

"It would be interesting to know the names of the shrubs which are most suitable for this slope."

"The common Laurel does very well; the Portugal Laurel also. We have a number of Cotoneasters, Berberis Darwinii, and glumacea. In the spring the Siberian Crab and double Hawthorn thrive. Among the deciduous trees and shrubs, Acers, Escallonias, Laburnums, and Syringas are very suitable for this position. Among the shrubs we grow Fuchsias, Guelder Roses, and Hydrangeas of the common variety."

"And Pampas Grass?"

"Yes, Pampas Grass seems to like the soil exceedingly. We have about a score of plants. In order to increase the stock, it is only necessary to dig up a clump and part it."

"What about Rhododendrons?"

"The soil does not suit them at all. Ribes is planted at intervals along the slope, and looks very pretty in the spring. Of course, the trees are all young, but the Cupressus, the Pinus, the Silver Fir, the Beech, and the Poplar promise to prosper. We have not, so far, planted any Oaks."

"Is the soil chalky?"

"Decidedly, but there is a mixture of clay. There are many things we cannot grow on it, but we are trying to turn it to account. Last year I trenched a piece of ground three feet deep. The south-west wind, to which we are very much exposed, is one of our difficulties, but no pains are spared with the view of selecting varieties which find the soil congenial, and will stand the situation.

"As an illustration of the difficulties in getting shrubs to grow," continued Mr. Pottle, "I may mention that when I was making the rockery I found solid rock just under the turf. By the way, the St. John's Wort grows luxuriantly all round the borders of the shrubs in various parts of the garden."

"Have you many varieties in the rockery?"

"Sedums of different sorts, Aubrietias, Yuccas, Cerastiums, Echeverias, and Sempervivums. We do not limit it to rock plants, but put in Polyanthus, Violets, and anything that will grow. The rockery, which is about twelve yards long, is approached through an archway with Clematis over it."

"The lawn on the slope must be rather hard to manage?"

"It wants carefully looking after, and the mowing is rather hard work. In summer we put a few vases on the terrace, containing such flowers as Fuchsias, Ivy-leaved Geraniums, Heliotropes, Lobelias, and Nasturtiums. Another point is that, as the rain washes the gravel on the walks down, it has constantly to be replenished."

"You have a number of young Rose trees close to the range of fruit houses?"

"They have only just been planted, but, judging by the old Rose trees, the soil suits them admirably, and little feeding is required. The best of the varieties, which are all Hybrid Perpetuals, are: Abel Carriere, Baroness de Rothschild, Baron de Rothschild, Captain Christy, Charles Lefebvre, Clio, Duchess of Albany, Duke of Albany, Duke of Edinburgh, Eugene Verdier, Fisher Holmes, Gloire Lyonnaise, Grand Mogul, Her Majesty, La France, Lord Frederick Cavendish, Marchioness of Londonderry, Margaret Dickson, Maréchal Vaillant, Merveille de Lyon, Mrs. Harkness, Mrs. John Laing, Reynolds Hole, Silver Queen, Sultan of Zanzibar, Victor Verdier, Violette Bouyer, and White Baroness."

"When were the Peach trees in the houses planted?"

"At the time the garden was made. The range was built by Messrs. Wrench and Co., of Norwich. The varieties are Alexander and Sea Eagle, and the Nectarines Lord Napier and Pineapple."

"You still have some Chrysanthemums in the Peach-house and Vinery?"

"They are the last. We grow about a hundred and fifty for big blooms, chiefly Japanese."

"I think you took the first prize at the Reigate show in November for twenty-four varieties?"

"Yes. Here are the names of twelve of the twenty-four: General Hutton, Miss E. Fulton, Charles Langley, Miss Alice Byron, W. R. Church, Godfrey's Pink, Loveliness, Viviand Morel, Marquis V. Venosta, Kimberley, Lady Hanham, and Mrs. George Mileham."

"How many years have you shown Chrysanthemums at Reigate?"

"Eight or nine, but never on a large scale. I took three firsts this year, one for six Incurved varieties, and another for one Japanese flower. My group was thirty feet in diameter. In 1903 I also took first at Reigate."

"But you have also shown them successfully at the Crystal Palace?"

"Only once, because I exhibited there for the first time at the 1904 show of the National Chrysanthemum Society, and I was fortunate enough to win the first prize for six distinct Japanese blooms."

"Have you shown fruit?"

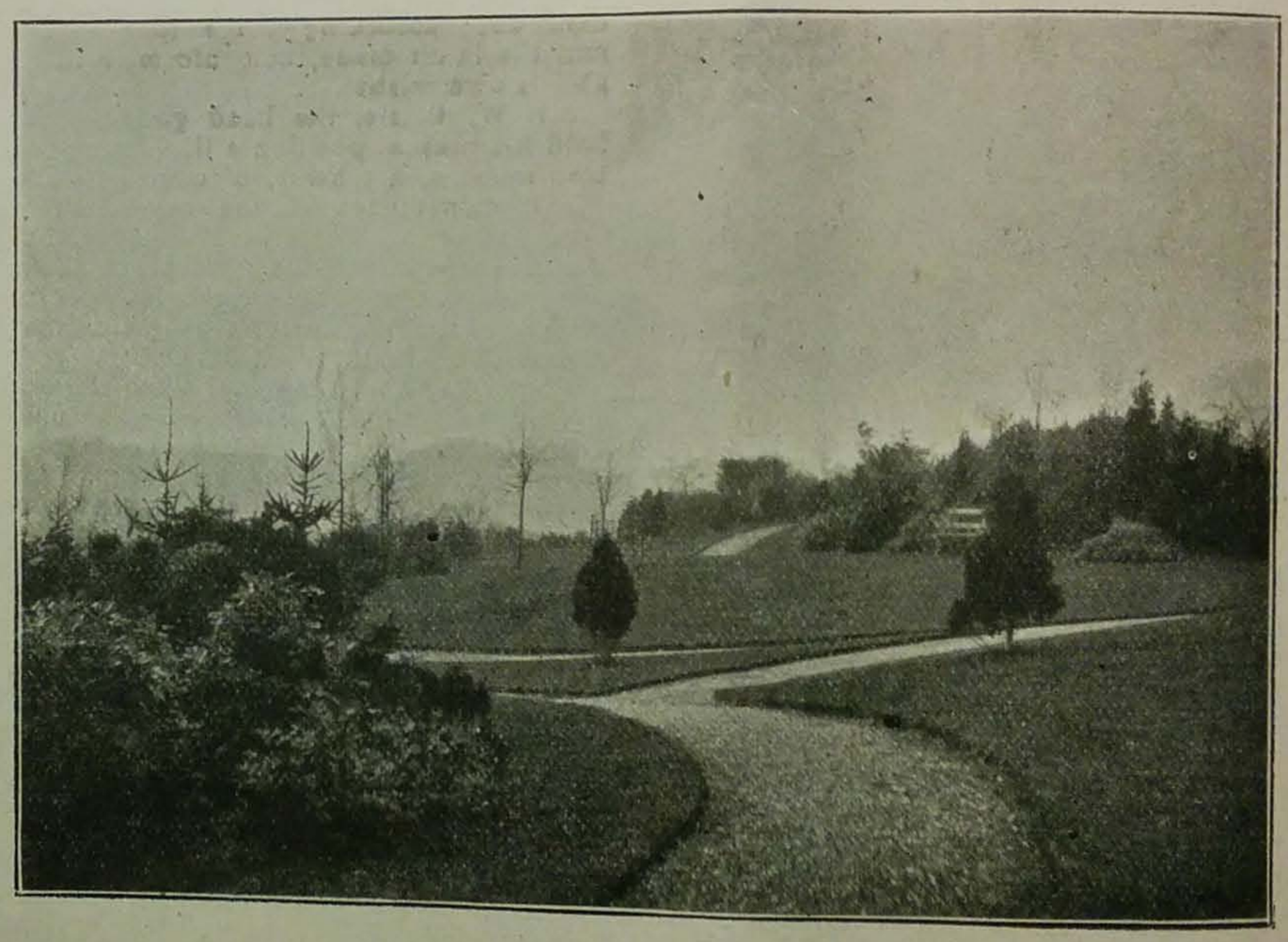
"At the summer show in Reigate I have exhibited and won prizes for Pelargoniums, Ferns, herbaceous plants, Gloxinias, baskets of Roses, and collections of salad. But I am particularly fond of showing Chrysanthemums. I suppose I grow about sixty Japanese varieties. The Peach house was crammed with them in the season."

"How many varieties of Grapes are there in the two Vineries?"

"Five. In the early Vinery we grow only Black Hamburgh; in the late Vinery, Foster's Seedling, Muscat of Alexandria, Lady Downe's Seedling, and Black Alicante. They come in rotation very well, and cropped well this year. The last Alicante Grapes were cut early this month."

"Cinerarias appear to be rather a feature?"

"I took a certificate of merit for them last year at the Reigate show. We grow about fifty-four. The varieties are Stellata and Trower's Superb. The seed is usually sown in pans in May. I prick the plants into small pots, then pot them on once into big 'sixties,' and subsequently into 6-in. pots for flowering. I consider that the 6-in. pots are quite big enough for several weeks."



The Lawns at Broadlees, Reigate.

"What are the particular features in the stove?"

"There is a big Date Palm in the centre; Orchids in variety, including Dendrobiums nobile, and Wardiana, Oncidiums, Cypripedium insigne, Cattleyas, and Lælias; Dracæna Pandanus; Begonias of the Rex variety; and a few Crotons. Tradescantia hangs round the side, on the roof there is a fine specimen of Bougainvillea glabra, also Allamanda and Stephanotis, and in the corner is a big Hibiscus."

"In the greenhouse I observe that you have some more Orchids."

"About a dozen Odontoglossums. The Camellias in pots, white and red, do well; also the Arum Lilies and Oleanders."

"What strain of Cyclamens do you go in for?"

"Sutton's; it is very good. We grow about seventy-five; also some Primula sinensis."

"What is the name of the white flower just coming out?"

"Eupatorium. It will be in full bloom in February. Eupatoriums are very useful for decorating. They are not expensive to grow, and require about the same treatment as Salvia splendens."

"How many frames are there just outside the range?"

"Twelve, six on each side. They are full of bedding plants, including Carnations (Malmaisons and mixed Border varieties), and Violets (Marie Louise)."

Then we strolled through the kitchen garden, and I admired the cordon arches running right through the centre.

"We grow Apples, Pears, Plums, and Cherries on the cordons," said Mr. Pottle. "The six best Apples are Cox's Orange Pippin, Cox's Pomona, Golden Noble, Ribston Pippin, Keswick Codlin, and King of Pippins."

"How about Pears?"

"I think that the best six Pears are Williams's Bon Chrétien, Marie Louise, Duchess d'Angouleme, and Beurré Diel. The Plums are principally Belle de Septembre, Coe's Golden Drop, The Diamond, Jefferson, Kirke's, and Victoria."

"You have espalier trees entirely surrounding the vegetables?"

"Chiefly Apple trees, the varieties being, notably, Fearn's Pippin, The Queen, and Wellington. The Plums grown on the espalier system are the same varieties as on the cordons. Apples and Pears are also grown on the bush system. Among the former are Bramley's Seedling, Wellington, and Cox's Pomona. Pears and Plums, as well as Peaches, Morello Cherries, Apricots, and Currants, are grown on the walls."

"And bush fruit?"

"The Gooseberries include Keepsake, Champagne, Crown Bob, Warrington, and Whitesmith. Black, White, and Red Currants are grown."

"How many varieties of Strawberries?"

"Hitherto we have only grown Sir J. Paxton. But I am going to try Royal Sovereign next season. We had this year a very good crop of Filberts and Cobs. The Nut trees, as you see, face the potting sheds."

"I should like the names of some of your varieties in vegetables."

"Of Onions we grow Trower's Exhibition and James's Long-keeping; of Carrots, Trower's Intermediate and Early Gem; of Turnips, Early William, Six-weeks, and Kirke's Castle, when I can get it, for winter work; of Parsnips, Student and Tender and True; of Beetroot, Dell's Crimson and The Globe; of Artichokes, White; and of Celery, Sulham Prize."

"How many kinds of Peas?"

"Six. William the First cannot be beaten for early work. We have also Satisfaction, Veitch's Perfection, Eureka, Autocrat, and Duke of Albany. I did remarkably well with Beans last year."

"What about Cauliflowers?"

"To start with, we grow First Crop, and then, in succession, Early London, Walcheren, and Veitch's Autumn Giant. Of Broccoli, we grow Michaelmas White and Late Queen. We have only one variety of Brussels Sprouts; and the Potatoes include Early Regent, Beauty of Hebron, Up-to-Date, Abundance, and Windsor Castle. There are no new varieties."

"You have not mentioned Tomatoes, and other vegetables for salad."

"The best varieties of Tomatoes are the Duke of York and Ham Green Favourite. Of Lettuces, we grow Sutton's Favourite, Tom Thumb, and Mammoth Cos. Then, we have about a hundred plants of Endive, and Radishes are grown in number. Among the vegetables I should have mentioned the Kales, Salsafy, and four beds of Asparagus."

"Where did you commence gardening, Mr. Pottle?"

"At Chigwell, in Essex. When I had been there between three and four years, spending a good deal of time in the houses, I went for a summer to the nurseries of Messrs. Williams, at Highgate. Then I was at Tillington House, Petworth, for three years. Next, I went to Up Park Gardens, Petersfield, for four years; and subsequently I was head gardener for between ten and eleven years at The Mount, Earlswood. At Midsummer, 1903, I came here."

"I suppose you began showing at Earlswood?"

"Yes, but I do not care much about it. If I have anything to show, I show it. I do not, however, spend much time in preparation. There is always plenty of work in the garden to claim my attention, and that, of course, is of the first importance."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 131.—PELARGONIUMS, AND POTATOES.

DEAR KATE,—Everything is beginning to grow, in the greenhouse, and one needs several pairs of hands to keep pace with the needs of the plants. The Show Pelargoniums must be shifted into their flowering pots, and syringed strongly every day to keep them absolutely free from aphides; they do best, we find, close to the glass (but not quite over the hot-water pipes) at this time, and they must have plenty of room and air, not being crowded together. Then the Zonal Pelargoniums (commonly called Geraniums) should be cut back sharply (if leggy), and, as soon as the fresh shoots are about an inch long, shaken out of the old soil and repotted, pruning away some of the older woody roots, but retaining as much of the fibrous part of the roots as possible. They will

A WINDOW-BOX.

then fit into smaller pots than before, and don't give them manure in their compost—good loam two parts, to one part of leaf-mould and a little soot and sand, will be rich enough, for you don't want a lot of foliage, instead of flowers. They should have very firm potting (the soil should be pommelled with the handle of the trowel to ensure this), and don't overwater the plants after repotting, for they will need but little until they have started growth. They must not be too much coddled, but given plenty of air and light, for it is only on stout, strong wood that good blossoms are produced. Later on they can be shifted into larger pots with richer soil, or planted out, or used for window-boxes, and for a hot, dry position there are few plants that can excel them, especially the Ivy-leaved varieties of Pelargonium. These enjoy more warmth now than the rest, and if you want to have good plants for a window-box in May, you should lose no time in preparing them.

We always put fresh cuttings of these plants into the open borders at the end of April; they take the summer to grow into nice little plants, and we pot them up (each in a small pot just large enough to hold the roots) in October. These young plants are now potted on, and have their points pinched off, so as to make them throw out sideshoots, and they will get another shift in April, and should be full of bud and bloom when the middle of May arrives. It seems a long time ahead to think about summer window-boxes, but there is really no time to be lost if you want as much blossom as in the photograph I send you. We use the silvery foliage of Centaurea plumosa with the pink Ivy-leaved Pelargonium Madame Thibaut; this Centaurea is but little known, and I cannot find it on any list or catalogue. It is far more handsome than any of the rest, the leaves taking the curl of an ostrich feather, and being doubly laciniated, and perfectly silvery. It does seem a pity that none of our horticulturists appear to know it, or keep it in stock. It is almost hardy, and easily grown from side-growths, which appear when the plant is cut back after flowering, and each of which makes a slip, which can be struck in a small pot separately, and potted on. The plants do not blossom for two or three years, and when they do their beauty is over, as they grow up tall and lanky; the blooms are not at all pretty, either, so that the best thing to do with an old plant is to cut off its head, for the sake of having plenty of cuttings at the base, and on the stem. The little plants are just like silver Ferns, and most decorative to slip into bowls for the dinner table, as they last much better than Ferns, and, in fact, Centaurea plumosa is an excellent room plant, doing well in a window for years together, if given plenty of water and repotted when necessary. It likes soot-water, too.

In the kitchen garden we are planting early Potatoes (Duke of York), in a specially sheltered position, and we mean to take great care that they do not get cut down by late frosts. A tree of the Cypress kind (Cupressus macrocarpa), which has lately been cut down, will provide plenty of small branches, which will be stuck into the soil so as to shelter the young growths from frost and cold wind; the thick foliage of the tree is very useful in that way. Talking of Potatoes, I am glad to see that Factor, the Scotch Potato which I selected as the best of those we tried here in 1903 (as you will see, if you still have my letter of November 14th of that year), has turned up trumps, and is now acknowledged to be a better all-round variety than Northern Star. It is also going up in price for seed purposes, as it has never been worried to death, like the "gambling" Potatoes, with cuttings and eyes too many to mention. When I see pictures of the proud possessor of hundreds of tubers out of one wretched pound or seed, and his store spread out before him, I think that there is a bad future for these highly-priced tubers. Most of them are not particularly good to eat; but, then, as they are too expensive to be cooked, what does that signify? The whole business is too much like gambling to please me; and, after all, it will be found out, sooner or later, that a good Potato, an excellent cropper, and first-rate cooker, like Factor, will rise in price, whilst the others will become played out and worthless. Discovery seems to be a good sort, perfectly free from disease here, but we have not eaten any of the tubers yet, and I don't like to say too much about it without having tasted them. I hope it will not be ruined by cutting it up too much, for this makes the resulting crop coarse,

JOHN POWELL, an excellent gardener, fruit grower, and good man, died on the 9th inst., at Cedar Cottage, Old Windsor, aged sixty-two. He had the charge of the hardy fruit department in the Royal Gardens, Frogmore, under Mr. Ingram, Mr. Rose, and Mr. Jones, until recently, when he was compelled to retire through failing health. Few men had a better knowledge of hardy fruits than John Powell, and few men were more respected. He is thus spoken of by Miss Ingram in a contemporary: "On the completion of the Royal Gardens, my father wished to engage a competent person to superintend the wall and outdoor fruit department, and was recommended Mr. J. Powell, by Mr. Robert Wilson, gardener to the Duke of Norfolk at Arundel, with whom he was then living. He came to Frogmore in 1844, and entered heart and soul into the duties of his place and profession, and to the culture of and improvement of fruits generally, and thus became my father's right-hand in the raising and perfecting of the many new and beautiful fruits that were sent out from Frogmore. Of the numerous young men who were placed under Mr. Powell in his long career, few, if any, had cause to regret it; his kind and gentle manner won the esteem and respect of all. The admirable manner in which he managed the great extent of walls was universally admired, and his name will not soon be forgotten by all his friends and lovers of horticulture." Mr. Powell in years gone by contributed largely to the horticultural press, and was even engaged in that work for ourselves in the week in which he died.

from all flowers selected for fertilisation, and to prevent interference by insects the flowers were enclosed in close-fitting paper bags. To show the need of care, it is mentioned that many flowers, even apparently unopened, were found,

MR. J. PRENTICE.

when examined with a lens, to contain minute insects which had fed on the immature pollen, and scattered it about. Another of Mr. Sutton's conclusions is that "the yellow-fleshed Turnip cannot have been obtained by crossing the Swede with the Turnip." He found that it was possible to cross them, but that the resulting offspring were in every case sterile. This established the probability, if not the certainty, that the Swede and the Turnip are separated by a sufficiently wide gulf to be entitled to be called distinct species.

**The Garden Entrance.**

February 13th.—It is curious that in few, if any, books on landscape gardening is any attention paid to the entrance. Yet it is from the entrance that we get our first impressions of the grounds, and those impressions are practically certain to influence the subsequent ones made by the grounds themselves. In ancient times, such was the importance attached to the entrances to cities and castles, that there public proclamations were made, and courts were held for the administration of justice, and in the posting of notices on the doors of churches we have a survival of the old custom. Yet how often do we see, as the entrance to some really beautiful grounds, a mean gateway in a mean position, or, what is perhaps worse, some utterly unsuitable decorative structure, suggestive of a waxwork exhibition within. Of course, it is not often easy to find such an admirable position for a gateway as at Aldermaston Court, as shown in the illustration, but there it has been used to the greatest advantage. It is situated at the top of the slope which forms the village, and looking upwards one sees through it the fine trees which are the feature of the grounds, and looking downwards, the picturesque houses straggling away into the distance. In the ironwork there is not too much ornament, but just enough to harmonise with the surroundings.

H. C. DAVIDSON.

# The Gardens at Gifford House, Roehampton.

INTERVIEW WITH MR. J. PRENTICE.

CONSIDERING the locality of Gifford House, the gardens are on a very large scale, indeed, and embrace several features of quite exceptional interest. When I visited them in December, by the courtesy of the owner, Mr. J. D. Charrington, under whose auspices the noble mansion originally belonging to Lord Gifford has been extended, I was amazed at their size. No one strolling in the pleasure gardens, along the leafy walks, or in the charming cricket ground, would imagine that the centre of London is not more than five or six miles away.

Near the house itself there are no creepers, but close to it, on the north side, is a large round bed of Rhododendrons The Queen, Duchess of Connaught, and Michael Waterer, making a fine show of white and scarlet in the season.

"This," said Mr. Prentice, the head gardener, as we proceeded to the avenue of Limes, "was planted five years ago, but the shrubs generally in the vicinity of the mansion have been there a long time. They are chiefly Osmanthus, Yews, Olearias, Euonymus, Hollies, Golden Privets, and Bays. The south side, which faces the roadway, though at a considerable distance, used to embrace the flower beds, but at present there are only borders."

"How are the borders planted?"

"Chiefly with Myosotis, Aubrietias, white Daisies, Polyanthus, and Violas, interspersed with Daffodils in one border, and with Tulips in another. The Violas are rather a feature, and the varieties include The Scott, Bullion, Lilacina, Emperor William, and Dawn of Day (a beautiful blue). As you see, there is another border of shrubs, notably Berberis, Laurustinus, and Phillyrea. Then, amongst the more notable trees, are Birch and Mulberry; the latter fruits remarkably well. On the lawn, also, are good specimens of Ilex Golden Queen and the common green kind."

"You have a grand specimen of Magnolia grandiflora on the wall at the back of the terrace, which, when the Roses on arches are in bloom, must look very effective, and make the promenade very pleasant?"

"Yes, the Magnolia runs the whole length of the wall. The Roses on the arches are of the usual Rambler type; but the flower beds and all bedding combinations are on the other side of the house."

Accordingly, we made our way thither.

"Two years since," Mr. Prentice continued, "the turf was taken off, and these beds were made. We carried away nearly four hundred loads of it, and the lawn was sown down. The object in each case is a pretty combination. Thus, here is a bed with Rhododendrons Pink Pearl, and flowering Cherries as standards. The former harmonise with the white of the latter."

"Please tell me a number of the combinations."

"There is a large bed, with Azaleas Minnie van Houtte on the outside, and Louis van Houtte in the centre, pink and orange, with standards of Acer Negundo variegata. Another combination consists of Rhododendrons John Waterer (crimson) and Prunus triloba as standards."

GIFFORD HOUSE, ROEHAMPTON.

"What is the extent of the lake near this bed?"

"An acre and a quarter. There are Rhododendrons round the sides, and on the island is a circle of the hardiest of standard Roses, double-flowering Cherries, and Brooms in

variety. The hardiest Roses I could find include Captain Hayward, Duke of Edinburgh, Beauty of Waltham, Camille Bernardin, and Abel Carriere."

"With regard to the beds, I gather that you go in largely for the massing principle?"

"It is adopted throughout, but particularly with respect to flowering shrubs. Thus, there is a bed composed entirely of Olearia Haastii, which makes a fine mass of white. Beyond this is a bed consisting exclusively of Berberis aquifolia, and another of Rhododendrons White Pearl."

"And more beds of Azaleas?"

"Yes, a bed of Ghent Azaleas, with a border of Veronica variegata. The border takes off the bareness of the bed. Most of these beds have, of course, been here much longer than those which have taken the place of the removed turf. In fact, they were made eleven years ago. One of the best combinations is Azara microphylla, a yellow-flowering shrub, with an edging of Veronicas. Yet more effective is a bed with Malus floribunda as standards, and Fuchsias Riccartoni as groundwork—this is a lovely sight in the summer. Then, there is a bed of Berberis Darwinii, with an edging of the same; and a bed of Hydrangeas Hortensis with an edging of Veronica variegata. We are going to make a string of beds along the lawn for summer."

"What shall you fill them with?"

"Geraniums Paul Crampel, Calceolarias amplexicaulis, mixed Verbenas, and Geraniums Hermione. The favourite colours, scarlet and white, or yellow and pink, predominate."

"What is the length of your herbaceous border?"

"A quarter of a mile. As to varieties, there are twenty of Papaver orientalis, all the varieties of the Novi-Belgii section of Asters, large clumps of Tritomas, Rudbeckias, perennial Sunflowers, Hollyhocks, and Doronicums. We use about a thousand Dahlias in all every year and autumn-flowering Chrysanthemums are also a feature. The principal varieties are Lady Fitzmaurice, George Wermig, Harvest Home, Morning Star, Goacher's Crimson, and Horace Martin."

"How large are the pleasure grounds?" I asked, as we came to a new shrubbery, with a couple of ponds, and caught sight of deer in the paddock.

"Thirty acres. In this shrubbery is a number of Cedrus deodara, the double-flowering pink Cherry, and Prunus triloba, all three planted as standards. The terrace, with ponticum Rhododendrons, was planted last year with Pampas Grass, in order to give variety."

### The Chinese Cottage and Lily Pond.

"What is the accurate description of the picturesque building looking on to the ponds?"

"It is a Chinese cottage. The Lilies in the ponds are choice Nymphæas, such as fulva, fulgens, Robinsonii, Paul Heriot, lucida, Ellisiana, atropurpurea, Comte de Bourchand, William Shaw, stellata, and albida."

Near this delightful retreat, and facing the ponds on the other side, is the new kitchen garden, with an Apple fence.

"The fence," said Mr. Prentice, "was planted six years ago. The Apples are all dessert varieties, and we get a nice colour on them. Members of the family and visitors pick the fruit for themselves. The varieties grown on the fence are Beauty of Bath, Red Astrachan, Lord Burleigh, Barnack Beauty, Beauty of Stoke, Benoni, Wealthy, Braddick's Nonpareil, Hollandbury, Lady Sudeley, Okera, King Harry, Irish Peach, Tyler's Kernel, Worcester Pearmain, Blenheim Orange, Washington, Reinette du Canada, Egremont Russet, Standard Bearer, Mr. Gladstone, Boston Russet, Claygate Pearmain, and Baldwin's Pearmain."

"You have Apples on pyramids at the other side of the fence. Which do better?"

"Those on pyramids—considerably better. The varieties of these are mainly Lord Suffield, Hoary Morning, Cellini, Wellington, Frogmore Prolific, Blenheim Orange, Cox's Orange Pippin, and King of Pippins. Of the Pears on pyramids in this garden, which is two and a half acres in size, Magnet, Beurre Hardy, Beurre d'Amanlis, Pitmaston Duchess, Thompson's, Duchess d'Angouleme, Princess, and Souvenir du Congres, do the best."

"What about other fruit?"

"Morello Cherries, Gooseberries—which, however, have to be netted all the year round—Raspberries, and the American Parsley-leaved Blackberry thrive; also Damsons and the Bullace Plums."

"Is there anything special in vegetables?"

"Celery is a feature. We grow a different variety in each trench. Standard Bearer is one of the most useful for keeping. We were troubled with maggot in the early season, but, by using a mixture of soot and lime, we have been able to check it. The Turnips, Chirk Castle, and a few rows of Veitch's Red Globe, the best all-round variety."

Returning to the vicinity of the ranges of glasshouses and the original kitchen garden, we passed along some pretty walks, whose banks in spring are full of Crocuses, Grape Hyacinths, Dog's-tooth Violets, and, later, a blaze of Bluebells.

### The Treatment of Border Carnations.

Pausing at the frame grounds, we discussed some of the plants which are used for the bedding, and I enquired of Mr. Prentice as to how many varieties of Border Carnations were grown, and he replied,

"About sixty. The best of these are Raby Castle, Leander, Snowdon, Ladas, Hero, Francis Wellesley, Countess, Dido, Alice Ayres, Primrose League, Terry, Fair Maid, and Snowflake."

"How do you treat them?"

"They are started in the borders, and as soon as they are rooted we pot them on, and plant in the border again about March, if the weather is favourable. They must not remain in the border during the winter. Perennial Asters are largely grown for autumn flowering for the decoration of the conservatory, which is at the east end of the mansion."

### Growing Asters for Decorating.

"How do you grow the Asters?"

"When they begin to break, in the spring, I get one shoot and put it into a 'sixty' pot. As soon as it is rooted, I pot it on, finally using a 'twenty-four' pot, and in this pot we secure a complete pyramid between four and five feet high. Amongst the best of the varieties are Simplex, formasissimus, ericoides, and Top Sawyer. Dielytras are used for forcing, the varieties being spectabilis and spectabilis alba. Then we grow about eleven hundred large-flowering Chrysanthemums."

"Which of the Japanese varieties do you prefer?"

"The pick of them includes Beatrice May, Bessie Godfrey, Duchess of Bedford, Edith Smith, George Lawrence, Hon. Mrs. A. Acland, Madame Paola Radaelli, Mrs. F. S. Vallis, Mrs. W. Knox, Mafeking Hero, Reginald Godfrey, J. Reed, Miss Stopford, and Miss Olive Miller. Some of the best of the Incurved varieties are C. H. Curtis, Duchess of Fife, Fred Palmer, Mrs. C. Crooks, Mrs. F. Judson, Mrs. F. Ashworth, and Mrs. J. Wynne. With regard to cultivation, there is nothing unusual. Much, of course, depends upon the class of flower required, and when it is wanted. No fixed rule can be made as to the time of stopping, for this greatly depends upon the district in which Chrysanthemums are grown, and the date at which flowers are wanted."

"Is your soil congenial?" I enquired, as we strolled into the kitchen garden.

"It is a light gravel, on a gravel subsoil. We have to use a great quantity of manure. A few standard Apples are grown here, and amongst the Pears are Louise Bonne of Jersey. Peaches are grown on the west wall, where also are Currants, which are all netted. The varieties of the former are Dr. Hogg, Grosse Mignonne, Hale's Early, Stirling Castle, and Lord Napier Nectarines. The dessert Cherries, also on the walls, are Early Rivers, May Duke, Black Eagle, and Belle d'Orleans."

THE ARCHWAY WALK AT GIFFORD HOUSE, ROEHAMPTON.

### Strawberries in Quantity.

"What is your system with Strawberries?"

"We fruit them for three years, generally getting a season of four or five weeks. I am just trying two rows of St. Antoine de Padoue, a perpetual-bearing variety."

"You have a number of flowers here, also?"

"Yes, the centre borders are always well filled, and in the spring there is a fine show of Darwin Tulips. Later, Phlox in variety, Sweet Williams, and Montbretias are conspicuous. The Pinks, which are used very freely, are Mrs. Sinkins and Anne Boleyn. This garden is the best place for our Roses, and the varieties include dwarf Polyantha, Cecil Brunner, Mrs. W. H. Cutbush, Madame Levavasseur, Jeannie Deans, White Pet, Eugenie Lamesch, and Leonie Lamesch. The Hybrid Perpetuals which thrive most are Marchioness of Londonderry, Liberty, Caroline Testout, and Mrs. F. W. Sandford. As a matter of fact, the soil here is too light for many varieties, and I am going

to make some Rose beds in a heavy clay. But now I think we must visit the houses, beginning with the Vineries."

**Grape Cultivation.**

"When was the late Vinery planted?"

"Last spring. It used to be a Rose house. In front, the varieties are Lady Downe's Seedling and Black Alicante; and the back of the house is all planted with Black Hamburgh. We use a good many Grapes for fruit salad, as well as for dessert. The second Vinery is entirely filled with Muscat of Alexandria."

"I see that you have borders both inside and outside. Do you consider them an advantage?"

"Yes, for ordinary cultivation; but, if forcing is done, it is better to have only an inside border, because in a hard winter, the outside border being cold, the roots of the tree are also cold, while the tops are warm."

"What are the varieties in the next Vinery?"

"Black Hamburgh, Buckland's Sweetwater, Foster's Seedling, and Madresfield Court. On the back wall, Asparagus plumosa grows remarkably well."

"Do you prune your Vine hard?"

"Yes, very, only leaving two eyes each time. I believe in the system of inarching Vines on old rods. For example, I find that Buckland's Sweetwater, worked on a Black Hamburgh, does better than on its own root; also, Foster's Seedling and Madresfield Court do better rooted on Black Hamburgh. In fact, the way to avoid split berries with Madresfield Court is to grow it on Black Hamburgh roots."

**Vines in Pots.**

"How soon do you pick Peaches indoors?"

"Early in June, beginning with Royal George Peach, and Lord Napier Nectarine. In the early house we start them at the beginning of December. In the next house, which is thirty feet long, we grow Nectarine Elruge on the front, and Barrington Peach on the back. The Nectarine covers the entire front. It crops well, and the fruit is of a good size and flavour. In the Fig house we get crops of Brown Turkey at the end of May and the end of August. The tree is upwards of thirty years old. To finish the fruit houses, we had better take that in which pot Vines are grown. The varieties are Black Hamburgh and Buckland's Sweetwater."

"How long have you been growing Vines in pots?"

"For the last five years. We cut Grapes at the beginning of May from these pots. Of course, the forcing is very hard. We break the bottoms off the pots, to give the roots liberty. The bed is prepared by placing a layer of turf on the bottom; this is sprinkled with some approved fertiliser, then another layer of turf is added, and subsequently a second sprinkling of the fertiliser. On this we stand the pots, and the Vines root into the compost. They are then bedded in with leaves or manure, and covered over with about an inch of Cocoanut fibre."

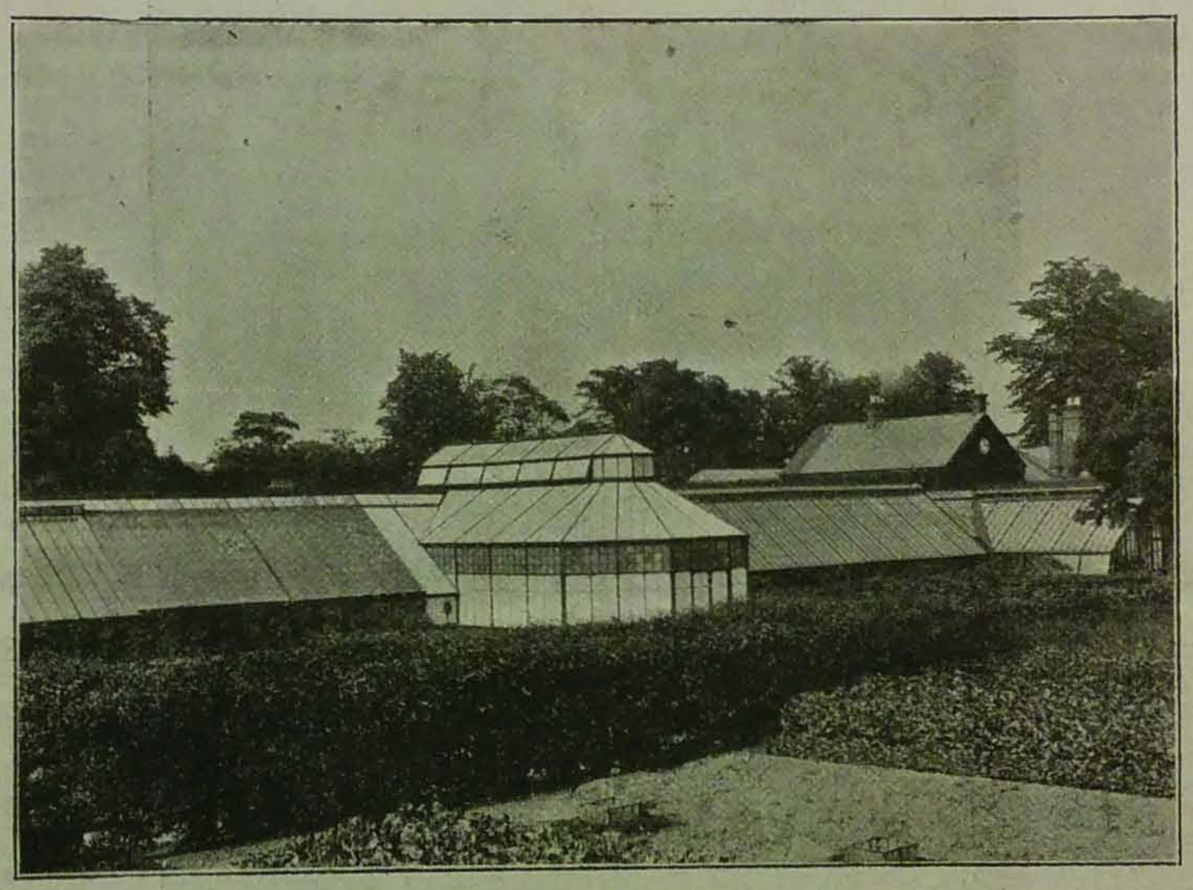
**Features of the Plant Houses.**

Entering the plant houses, we started with the rockery, the wall of which is planted with Begonia Rex in variety, and Adiantum capillus-veneris (Fern), which was put in ten years ago, and now covers the whole of the rockery with its seedlings. Bamboos flourish on the sides, the principal variety being gracilis. In the stove, the chief feature is the Palms, though it also contains Eulalias and a very fine Fern called Goniophlebium subauriculatum, the fronds of which are from seven to eight feet long. The roof is decorated with Allamandas Hendersonii and Williamsii, and Jasmine sambac. In another house were Malmaison Carnations and Fuchsias.

**The Corridor.**

Having duly admired the last-mentioned features, Mr. Prentice next conducted me to the ornamental corridor.

"This corridor," he said, "connects four ranges of houses, two containing plants, and two for Melons, Cucumbers, and Tomatoes. Orchids are grown in one of the former. Here, you notice, we have Cypripediums insigne, venustum, barbatum, Sedenii, and Harrisianum, with Cœlogyne cristata. The next house is devoted to Dendrobiums nobile and Wardianum, with Cattleyas Trianæ, Mossiæ, and Schroederæ. Clerodendron fallax and Cyclamen are grown in the third house, and the fourth is devoted to Begonias, the winter-flowering varieties being Turnford Hall, Lord Rothschild, Agatha, Gloire de Sceaux, and Mrs. Arthur Mallett (a dark leaf and pink bloom). The winter-flowering Geraniums, which are principally doubles, are Golden Gate, Hermione, and Raspail (white and scarlet), and in this house a batch of Freesias will soon be in flower.



SOME OF THE GLASSHOUSES AT GIFFORD HOUSE, ROEHAMPTON.

Here, too, are a number of herbaceous Calceolarias, and Humea elegans, which will be placed in 'sixteens' for the decoration of the corridor and conservatory."

**Crotons and Melons.**

"You grow Crotons in the same house with Melons?"

"Yes, I find that, by doing so, both Crotons and Melons benefit, the atmosphere being more humid. The varieties of Melon are Blenheim Orange, Eastnor Castle, Earl's Favourite, and Sutton's Ringleader. In the Cucumber house we grow Veitch's Sensation, and Rochford's Market; but at the present time the Cucumber houses are both filled with Cinerarias, Primulas, and other plants. You might mention that we go in extensively for Caladiums and Gloxinias, also Tree Carnations. The best of the Carnations are Mrs. S. J. Brooks, Duchese of Portland, and Enchantress (white and pink)."

"I suppose you always keep the corridor itself bright?"

"We really treat it as a flowering house, and the other houses for growing plants. The roof is covered with Ivy-leaved Geraniums Madame Crousse and Charles Turner, and just now Poinsettias, Eupatoriums cordatum and petiolare, Begonias in variety, Arum Lilies, Plumbago capensis, a number of Ferns, Azalea indica, Roman Hyacinths, and Narcissus polyantha, are all in evidence."

"I believe you have done a good deal of showing, Mr. Prentice?"

"I have made various exhibits during the past five or six years at the Putney and Wandsworth show, and also at Wimbledon. In 1904, and again in 1907, I won a cup at the Putney show. During 1908 I was first at Putney—for a miscellaneous group of flowering and foliage plants."

"When did you come to Gifford House as head gardener?"

"Eleven years ago. I was trained for three years in Mr. Balfour's gardens at Whittingham, and went in succession to Gosford House gardens, Hopetoun House gardens, and to Worth Park, Sussex, where I was foreman of the fruit department."

ALFRED WILCOX.

## French Garden Work.

SEEDLINGS of Cauliflowers, Carrot, and Turnip have come on apace. We are planting the former, in their first juvenile stage, twenty-five plants under a cloche. These will be further reduced in company to ten, and will take up their final quarters in solitary state and grandeur, with attendant Lettuces of the Cabbage tribe, four in number, as a kind of body-guard. The Cabbage Lettuce will take their departure as a marketable commodity several weeks before the cloche can be removed, and when this period arrives, the Cauliflower will be in fine stature, and find itself bordered by stately rows of blushing Carrots.

On all of our borders we are forcing winter Lettuce very successfully. This is quite a new departure in intensive culture. For this purpose the cloche alone is brought into play.

Melons and Cucumbers are showing well in their seedling pots and beds, and we shall make our first growing bed for Melons in a few days.

This is constructed somewhat differently from that intended for Cucumbers, as only two feet width of soil is removed for the forcing material required. Melons like a rough, hearty soil, and, like Tomatoes, they will simply pine away in the luxurious leaf-mould and the like.

Asparagus, forced in specially prepared beds, are running up their towers with extraordinary vigour. We have placed lights on the frames of these beds, and shall give little or no ventilation till we see them safely marshalled in marketable lines.

Frames devoted to Lettuces, Radishes, Carrots, and Turnips, require plenty of ventilation, and should be opened at every available opportunity.

We are getting in some first sowings of Tomatoes, Broccoli, and Self-hearting Lettuce, together with Beans for forcing, all for the early market. We are not concerned with the rush and ruck of any other kind of selling. Herein lies the hope of the intensive culturist. All else is vanity, vexation, and small cheques.

WILLIAM WICHERLEY.

THE Carnegie Orange, which is reported to have taken twelve years of painstaking breeding to produce, is expected to prove a great boon to the people of Northern Florida, re-establishing on a flourishing basis a languishing industry of great value.

D. Pressly

Gardeners' Chronicle, 1876 n.s. 5

Mr. Pressly, whose portrait we publish to-day, was born in November, 1828, at Stuartfield, a village situate in the north-eastern portion of the county of Aberdeen; and when old enough, attended for many years the parish school, where the pupils were well drilled in arithmetic, spelling, and writing. “A year previous to my leaving school," he writes, "I joined a Latin class, in which, I believe, I made fair progress for the time; and I have since found it advantageous in the spelling of botanical names. To early training by my mother I owe much of my love of gardening. She was excessively fond of sweet-scented leaved plants, of which she had many kinds; and she also cultivated many border flowers.

"In the spring of 1845 I was apprenticed to my brother-in-law, Mr. G. Mathews, who was then gardener at this place (Knockmaroon Lodge). He was an ardent cultivator and successful exhibitor at the shows of the Royal Horticultural Society of Ireland, especially in the class of hard-wooded plants. The more difficult Ericas, Aphelexis, Phcenocomas, Leschenaultias, and Hovea Celsi were grown by him in a manner which I have not since seen surpassed. He exhibited at all the shows then held at the Rotunda, and most of the fashionable plants of the period were also grown. The old Lisianthus Russellianus (now scarcely seen or heard of) was a great favourite; a batch was raised annually, ensuring a succession of flowering plants. I took my part in the usual routine, such as wheeling, hoeing, digging, and scythe mowing—the latter a severe task for a beginner, until practical experience enables him to understand the proper keeping of the edge. Happily young gardeners have now comparatively little to do with the scythe, the invention and perfection of the various mowing machines having resulted in the work being done far better and more expeditiously. In what is termed the indoor department I had also an opportunity of fair practice in watering, staking, and potting, and also packing and unpacking, staging and arranging at the exhibitions.

"As to literary improvement, I read in my leisure time the gardening periodicals, also *Curtis' Botanical Magazine*. My standard works were *Loudon's Encyclopaedia of Gardening*, *Loudon's Hortus Britannicus*, *Lindley's Theory and Practice of Horticulture*, from which I profited much, and also his *School Botany*, which by close study I mastered tolerably; with many other books and periodicals on analogous subjects, all of which were supplied by the kindness and liberality of my employer.

“At the end of my term of three years I was promoted to the position of first assistant. A twelve-month after my brother-in-law emigrated to New Zealand, and became in the course of a few years a prosperous and successful nurseryman and seedsmen at Dunedin, the chief city of the province of Otago. I take this opportunity of making the above statement concerning him, because I feel sure that his friends about Dublin and elsewhere who survive will be highly pleased to learn of his success. At his resignation I was temporarily placed in charge, in which position I remained for a year; at the expiration of that time my appointment was ratified, my salary raised to that of my predecessor, and I was invested with the management and direction of the whole place, which I still retain.

"I exhibited at the shows in Dublin in the plant sections with tolerable success for a short time, but I soon began to find that the demands upon my time and resources at home were such that I was obliged to cease my connection with the shows as a competitor, but I have occasionally sent for exhibition subjects of special interest, for which I have received the highest commendation, or a more substantial award from the Council of the Royal Horticultural Society.

"In the spring of 1851 I was introduced to the late J. C. Lyons, Esq., of Ladiston, Mullingar, County Westmeath, who at that period possessed one of the most extensive private collections of orchidaceous plants in the United Kingdom, and who also had the merit of having a short time before written and published the first and only work on the

culture and management of that interesting and beautiful, and then little known, family of plants. I received an invitation to see the collection at Ladiston, of which I was not slow to avail myself, and was welcomed with characteristic hospitality and kindness, and received much personal instruction on the treatment of Orchids. I had also the pleasure of being presented with a copy of the work above alluded to. Mr. Lyons also presented my employer with a few Orchids, which formed the nucleus of a small collection subsequently brought together here, and which was cultivated with fair success until 1860, when extensive alterations, I might say a reconstruction of the whole garden, necessitated the removal of the house, which was well suited for their cultivation.

"In the summer of the same year a little horticultural tour was suggested. I left Dublin per steamer for Bristol, visited the nurseries of Messrs. Garraway, Mayes & Co., near that city; thence to those of the Messrs. Lucombe, Pince & Co., and Messrs. James Veitch & Son, near Exeter, where, of course, I saw much to interest and instruct. I had an introductory note to Mr. James Veitch (late of Chelsea), whose advice, kindness, and attention I shall ever appreciate. At his invitation I spent several days as his guest. He personally conducted me through the nursery quarters, pointing out and otherwise directing attention to everything of special interest, whether a tree, shrub, or herbaceous plant. Indoors the numbers and quality of plants cultivated in pots very much surprised me. One day he dispatched me in his vehicle to see Bicton Gardens (Lady Rolle), furnishing me with credentials to Mr. Barnes, who was very kind, and took special care that I should see everything under his charge. I have a clear recollection of his ridged kitchen-garden, his splendid Grapes and Pine-apples, the stately Araucarias, and the extensive and well-arranged arboretum.

"By the same kindness on the part of my employer in the following and for several subsequent years I had the privilege of seeing the May shows at Chiswick, and also those at the Royal Botanic Gardens, visiting in the interval, in succession, the leading nurseries and private gardens in the neighbourhood of London, and taking a run occasionally to the provinces to see local *fêtes*, &c. On these pleasant journeys numerous acquaintances were made and many friendships formed, not a few of which, I regret to write, have been severed by death. Alas! what havoc time has wrought amongst those who then stood in the front ranks of horticulture.

"Participating in the universal interest in exotic Conifers excited by the discovery and introduction of the Wellingtonia in 1853, I received encouragement to make a commencement to procure and plant some of the more recently introduced species; preparations were made accordingly. My first purchases were from the late Mr. R. Glendinning, of Chiswick. One of the plants thus procured, Cupressus Lambertiana, has attained large dimensions, being over 50 feet in height, with a proportionate diameter; it began to cone years ago, and from its seeds numerous healthy trees have been grown. As they were introduced, others were procured and planted, and, with a few exceptions, have done well. Due attention was paid to provide shelter from the prevailing westerly gales. The space at my disposal forbade me attempting to grow a large collection, I therefore planted the best sorts only; some of the specimens for symmetry and health will compare favourably with the same species to be seen elsewhere.

"Besides operations of an ornamental or decorative character I have projected and carried out works of utility and convenience."

Mr. Pressly further writes, in terms that it is not necessary for us to reproduce here, that throughout his long career of twenty-six years he has been so fortunate as to possess the fullest confidence of his employer, and has received substantial testimony from him of the value set upon his services. It is pleasant to read of such satisfactory relationship existing between employer and employed, and the fact is creditable to both parties.

should then be dressed with Stockholm tar or grafting-wax, the object being to exclude deleterious germs. No pruning should be done, unless it is absolutely necessary, and the soil close to the fine roots should be enriched with phosphates and powdered sulphate of iron. An excessive cold and the influence of hot sunlight on the bark are both causes of canker. He also recommends protecting the stem with clay. Trees which are liable to frost-glaze, and cracks due to severe frost, should be protected by bands of straw. American blight, one of the most

Mr. W. J. Prewett.

destructive pests in the orchard, must be attacked whenever and wherever it appears, the most effectual remedy being paraffin emulsion, applied with a hard brush. But that is not enough. Some of the insects are sure to escape, and most of them will attempt to spend the winter in the ground at the base of the tree. As soon as the leaves have fallen, therefore, the soil should be removed, and a thick dressing of lime and soot put in. For aphis, M. Baltet recommends pyrethrum powder, a remedy more frequently used on the Continent than in this country.

October 6th.—It is surely a mistake, from a business point of view, that manufacturers, for the purpose of advertisement, should over-rate their preparations. I am thinking now specially of weed-killers. I have tried many of them, and have found them all of various degrees of merit. They save time and labour, and, therefore, money, and they do kill weeds—within limits. But when one manufacturer says that a certain amount of his preparation will dress fifty square yards, another claims that the same amount of his will dress sixty, and so on. It is just here where the mischief comes in. A few weeks ago I used several gallons of a weed-killer on the paths of my garden. In spite of my past experience, I was simple enough to act on the statements made concerning it, and to apply it accordingly. Had I applied it to half the area, I have no doubt most of the weeds would have been killed; as it is, most of them are thriving, so I must repeat the dose next spring.

October 7th.—Some fine plants of Chrysanthemum tricolor, one of the handsomest of hardy annuals, are shown in the illustration. There seems to be some confusion about the nomenclature of this group. In some catalogues Burridgeanum is given as a separate species, whereas it is merely a variety, and C. tricolor is given as a variety of C. carinatum, whereas the two are set down as synonymous in the latest botanical works. A variety with four colours—Chameleon—was introduced in 1899.

H. C. Davidson.

# Famous Gardeners at Home.

No. 210.—Mr. W. J. Prewett, at the Gardens, St. Michael's Mount, Cornwall.

In all England there is no more picturesque seat than that of Lord St. Levan, in Cornwall, and few who visit that part of the county fail to spend an hour or two in exploring St. Michael's Mount, which, by the courtesy of the owner, can be inspected by strangers during certain hours. When the tide is low, the Mount is reached from the pleasant watering-place with the quaint name of Marazion, by the causeway, but when it is high there are boats available. On the occasion of my visit to the gardens—which are not, of course, accessible to the public—in the middle of August, I crossed by the causeway, meeting Mr. Prewett, the head gardener, on the way, and made my notes as we proceeded, beginning at the foot of the Mount.

Here there was a charming mixed border, representing the national colours, Geraniums Vesuvius being the red, Niphetos Roses the white, and Emperor William Lobelias the blue. On the east side was another mixed border, consisting mostly of annuals, mixed with Agapanthus and Tritomas, Gladioli and Lilium tigrinum, but, with respect to this border, Mr. Prewett said:—

"It looked very gay before the gale on August 3rd and 4th, which entirely blasted five Fuchsias."

"Otherwise they also would have looked remarkably well?"

"Yes; and they may break again. But you see that other things suffered about as badly—a Ribes and a Deutzia. The wind is the worst enemy we have to contend with. It does not much affect Tritomas. Last year we cut a large clump of them into five or six pieces, and they all flourished."

As we began to ascend the Mount, Mr. Prewett mentioned that last year he started on the improvement of the north side, planting Azalea mollis, which have fully answered his expectations. Ponticum Rhododendrons have been growing for many years, but several named varieties were planted at the same time as the Azaleas, and they have also done well. When we reached the north-east side of the terrace garden, I inquired what plants were easiest to grow.

"At one time we could keep nothing here, owing to the rabbits. Last year we had three hundred killed, and in the winter we planted Colchicums, but in three days the rats had eaten them. For the same reason we cannot grow Tulips. Hyacinths we can grow, and during the winter and spring months the whole of the Mount is bright with many varieties of Daffodils and Narcissus. At the south side of the back gardens there is a variety of Narcissus very similar to the Scilly White, but I think that the petals are whiter and the cup is a brighter yellow. It has been growing here for many years. The bulbs are so thick that you can stick a fork in and lift as many as a man can carry at once, all matted together."

"When do you begin picking Narcissus?"

"Just before Christmas, and in January, February, and March we are able to pick hampers of the special variety in question without missing them. After the Narcissus, the Bluebells flower in such quantities that parts of the Mount look quite blue from Marazion."

"You seem to have a great many varieties of Mesembryanthemum."

"Over a dozen, I think. They are at their best in June and July, but some of the varieties bloom nine months out of the twelve. We plant thousands of Wallflowers in the autumn, and they are in bloom practically all through the winter. The Tamarisk, London Pride, and the Hypericum (St. John's Wort) do well with us. I wonder that the latter is not more often used for table decorations. In spite of the salt spray, the Veronicas flourish, and we had a nice piece of Cistus."

"What about Hydrangeas?"

"The blue and pink varieties begin to flower about the beginning of July, and continue until the middle of September."

St. Michael's Mount, Cornwall.

At this favoured spot the Narcissus grows almost as rampantly as grass. At one place the bulbs are growing so closely that the roots are matted together. The flowers are in bloom well before Christmas.

At this point Mr. Prewett called my attention to the state of the Bracken Ferns, which, in consequence of the winds, were looking as brown as they ordinarily do in October. In the back gardens, which rise tier above tier, in a most attractive manner, my attention was at once arrested by the Myrtles, which cover the walls with splendid bloom.

"In the borders," continued Mr. Prewett, "are

Antirrhinums and Geraniums in variety. And here, too, are Jasminum (winter-flowering), Passiflora, Plumbago capensis, and Roses. The African Marigold, which you see flowering so freely, is one of Lord St. Levan's favourite flowers."

Ascending to the middle portion of the back gardens, I noticed some fine pieces of Aloysia citriodora and a small batch of Agathæa cœlestis.

"And the other plants which thrive in this position?" I inquired.

"Salvias (Scarlet Queen) will be very effective later on, and the Nicotiana Sanderæ, which was only sown in the spring, is thriving well. The fine specimen Fuchsia has been here for many years, and Hyacinthus candicans does well."

"The Aloes are, of course, a feature?"

"Last year we had two Aloes in flower in the summer. We took them out in November. They were of enormous weight, and of such size that we had to cut them in order to get them through the doorway in the garden. We had to use a small axe for the purpose, and some of the sap got on our hands, setting up intense irritation."

"What is the name of the flower near the striking dark Antirrhinums?"

"You mean the blue and yellow, with white petals. It is the Arctotis grandis. We put the plants out in May, and they have been in flower all through the summer. The Antirrhinums were only sown this year. We got the seed from Sutton's. There is a nice piece of Oleander just going to flower."

"How long have the Crinums been in flower?"

"About a month, and more spikes are coming up. We find the dwarf Delphinium—Blue Butterfly—a very useful bedding plant."

"It makes a lovely border."

"Yes; and it lasts in flower several months. On the wall are Geraniums in variety, and particularly fine plants of Madame Crousse."

"The walls are a part of the rock itself?"

"All of them," rejoined Mr. Prewett, as we reached the top portion of the back garden.

Here, too, Geraniums flourish exceedingly, and I inquired the height of a splendid specimen on the wall.

"About twelve feet. It flowers all the year round. We know it as Scarlet. Salvia patens does specially well in this part of the garden, and, among shrubs, Pittosporum Tobira flowers nearly all the year round, and, in the springtime, most profusely, while its perfume is very agreeable."

"What other shrubs, in addition to the Aloe, of which I see numerous fine specimens, do you consider suitable for cultivation just under the Castle?"

"Camellias grow well out of doors, and also Rosemary. Cassia corymbora, with its beautiful yellow, Pea-shaped flower, is another plant that thrives outside; and Correa alba may be included in the same list."

On the south-west terrace, under the shade of the trees, were some healthy-looking Cyclamen, and then I commented upon the remarkable number of Montbretias growing among Ferns.

"The soil and climate both suit Montbretias," observed Mr. Prewett, "and, so as to make the most of them, I am going to take a lot up this autumn and plant them where the Ferns are not tall enough to rather overshadow them."

In the course of our descent we paused to note several pieces of Yucca filamentosa variegata, and a good specimen of Phormium tenax (the New Zealand Flax), which flowers for a month, and then inspected the tennis lawn on the north, or entrance, side.

"When was it made?" I asked.

"About six years ago, with Sutton's grass seed. It came up very nicely, but the grass has become coarse, owing to the quantity of spray dashing over it. The salt acts as a fertiliser."

"The wall at the back seems to be planted with much taste and success."

"The varieties of Roses are Crimson Rambler and Banksian, with which are intermixed Honeysuckles, and Clematis Jackmanni. The arch is chiefly filled with Geraniums and annuals."

"In the border under the wall of the larger tennis court, now used for croquet, I notice a fine piece of Agapanthus, and that, instead of Roses, there are Escallonias and Euonymus growing luxuriantly at the back."

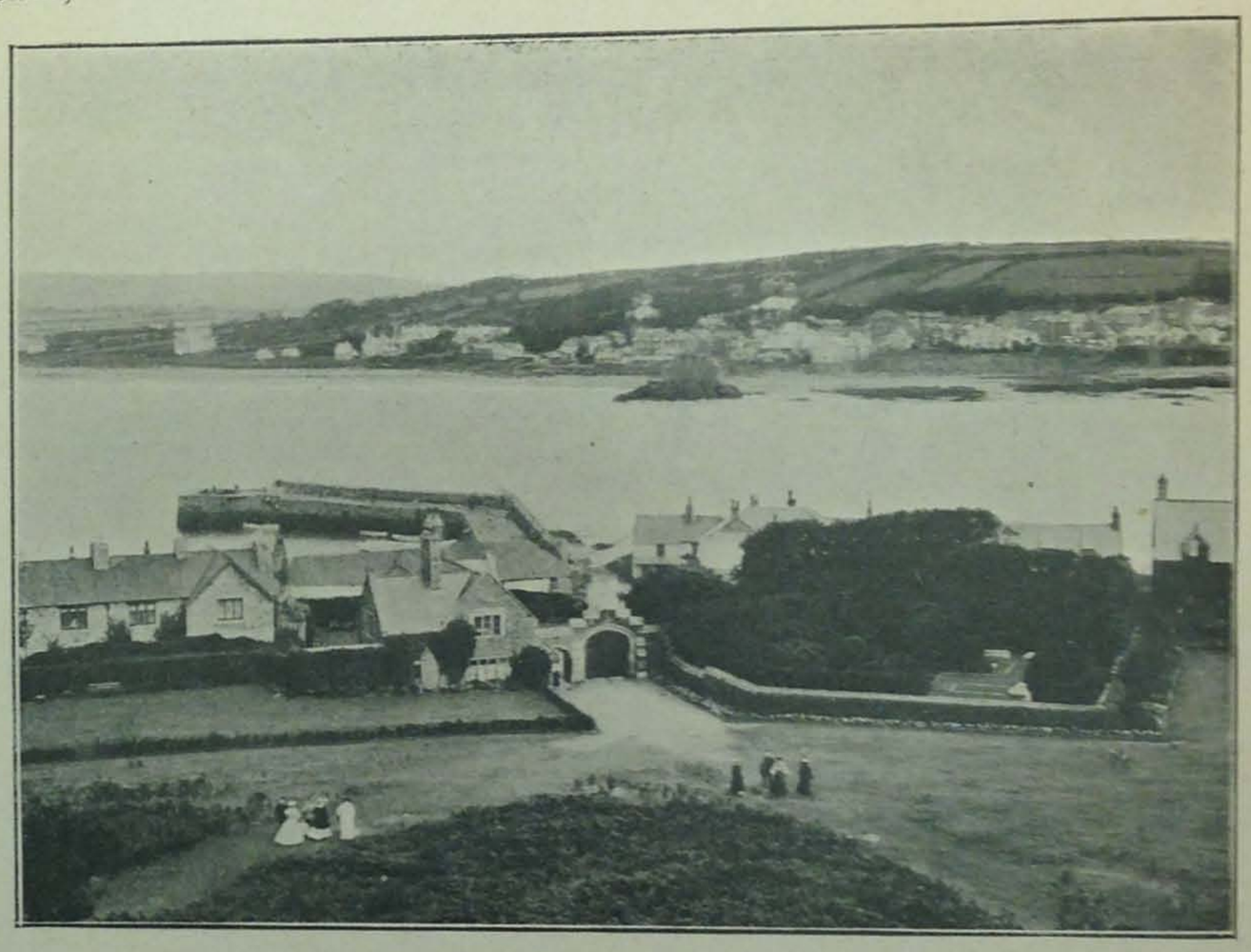
"Escallonias grow so quickly here that they require to be clipped four or five times a year. The Geraniums have been in that border eight or nine years, but the older they are the less they flower, which shows the importance of renewal."

Passing outside the lodge gates, I remarked that a row of comfortable cottages for workmen on the estate was adorned with various creepers, and that on the green was another flower border.

"A feature in this border, in the spring," said Mr. Prewett, as we arrived at the lych-gate leading to the churchyard, "is the number of varieties of Iris. They are delightful at the time, but they leave a blank space later on."

"There are some fine shrubs in the churchyard."

"Yes; they include Escallonia macrantha, E. phillipiana, and E. montevidensis, with Hydrangeas doing well in the shade. All the shrubs have been cut back very hard, and seem to be all the better for it. Next winter I am going to plant a number of rare shrubs here, because it is the most sheltered spot on the Mount. Every one of the existing shrubs acts as a windbreak. The graveyard contains the family vault; all the relatives are laid inside the kerbstone, and the other graves are those of villagers who lived on the Mount."



The Gardens of St. Michael's Mount.

This view is taken from the brow of the Mount, and shews a portion of the Gardens and the mainland in the distance.

"But where is the kitchen garden?"

"We only grow outdoor plants and shrubs on the Mount. Our orchard is at St. Erth, and there we grow standard Apples. The crop is rather poor this year, but among the varieties which do best are Blenheim Orange, Strawberry Apple, Royal Somerset, and two or three of whose nomenclature even Mr. Bunyard is uncertain. The kitchen garden, about an acre and a half in extent, is at Marazion."

We then recrossed the causeway, and spent a little time in a garden devoted to vegetables—chiefly Potatoes and Broccoli.

"I suppose you get Potatoes very early?"

"By the latter end of April. The market gardeners here pin their faith to Duke of York, but I think that Sharpe's Express and Royal Kidney are the two coming Potatoes."

As we entered the kitchen garden proper, Mr. Prewett observed that there were no special features in it, and that it is treated largely as a nursery.

"What about Pears?" I asked.

"We had a quantity of bloom, but the wind at the end of April did a deal of mischief to the Pears, and also to our wall fruit, which includes Gooseberries and Currants. With regard to Grapes, we are gradually taking out the old rods and running up new ones. The varieties are Muscat of Alexandria and Black Hamburgh."

"You have not many flowering plants in the houses?"

"Most of them are at the Mount now."

"Can you always get across?"

"No; I am sometimes prevented from crossing for a day or two, owing to the rough wind and sea. But, as a rule, I cross daily, and often more than once. In this range of houses we grow Duke of York and Winter Beauty Tomatoes, and we are working up a stock of Gesnera zebrina."

"You still have some fine Peaches left."

"Yes; we have had a very heavy crop. The varieties are Royal George, Barrington, Gladstone, Sea Eagle, Hale's Early, Princess of Wales, and Golden Eagle, while our Nectarines are Stanwick Elruge, Early Rivers, and The Cardinal. I send to the Castle daily in the season as many as two dozen Peaches, one dozen Nectarines, and six bunches of Grapes."

"You seem to have a good many plants outside."

"They are mainly for cutting, and include a fair number of Chrysanthemums, a good batch of Polyanthus, and a small quantity of Abutilon seedlings. We transplant Gladioli from the Mount. I think that, in any case, they ought to be taken up every year, and planted singly or in clumps. But there is nothing remarkable in this garden. We have, however, lately taken over a small garden, walled in, so that it is a regular sun-trap. We intend growing very choice plants in it, and I am working up a stock. We already have a good specimen of Bignonia radicans there, also of Solanum crispum and Habrothamnus elegans, as well as the largest Heliotrope I have ever seen growing outdoors."

"And now, Mr. Prewett, you have shown me so much of interest on the Mount and here that

I shall not be content without some information as to your gardening career."

"I commenced in the garden of Tresco Abbey, Isles of Scilly, under the late Mr. G. D. Vallance. From the Scilly Isles I went to Canford Manor, and was there for about two years, going thence to Purleybury, Purley."

"Were you head gardener at Purleybury?"

"Yes; and I remained there two years and a half, going afterwards to Wimbledon with the Hon. R. C. Parsons. My next move was to Frensham Place, Farnham, where I was head for ten years, two and a half under Mr. J. T. Woodruff, and the rest of the time under Mr. Pearson. At Farnham I used to show Chrysanthemums, greenhouse plants, and fruit at the Westminster Aquarium, and at the Drill Hall, taking several bronze medals. I came to the Mount in April, 1904."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 166.—EARLY CHRYSANTHEMUMS AND POTATOES.

DEAR KATE,—I hope you grow plenty of early Chrysanthemums? Just now they are very useful in the garden, where many of the summer flowers are over. These early varieties are the best for an amateur who does not care to compete in the shows for the biggest flower, but wants something graceful to adorn the room, the conservatory, and the garden in autumn; and now that these Chrysanthemums have been so greatly improved by crossing them with other Japanese kinds, they are just the thing, being about four inches across, and very elegant in shape. We are much pleased with Parisiana, a creamy-white beauty of perfect form. This is the best of the newer early varieties, flowering at the same time as Market White; and it is sure to become very popular, as it has a robust constitution, and is not too tall. Carrie is a grand yellow flower, which is extremely floriferous; and Rosie is not rosy at all, but in a fine shade of terra-cotta red, whilst Bronze Martinmas is a rather late flower, very æsthetic in effect. The best of the pink varieties is, I think, Coral Queen, in a lovely shade of coral-pink. I do not care for the blue-pink varieties, some of which come too near my special aversion—magenta—to be pleasant. Goacher's Crimson is a fine colour, and is splendid for cutting, as its blooms are produced on long, stiff stems; Rabbie Burns is a very good pink sport from Madame Marie Masse; and Black Prince is a large crimson bloom with a golden reverse, a decidedly handsome variety. If you have not yet seen any of these, you should get them in pots, at the present time, as they are charming when grown in this way, too, and most useful for the conservatory, which is apt to look a little dull when the Begonias are past their best in autumn. For window boxes, or for the room, too, these Chrysanthemums are charming, especially the more dwarf varieties; and our windows can be made bright with them for some weeks.

SOLANUM COMMERSONI.

The swamp Potato of South America, which is said to be disease-resisting.

What a sad account there is of the Potato crop! It is odd, too, that disease should be so troublesome, for the season has been a dry one. I fear we shall have to suffer for the late fashion of cutting up the tubers into eyes after removing all the cuttings possible, for this is destruction to the constitution of the Potato. I once saw a photograph of a gentleman, looking very much satisfied with himself, standing behind hundreds of Potatoes, all of which he had managed to get out of one tuber. But the poor man does not look like that now, I feel sure; for he has probably found out by this time that his Potatoes are almost worthless, as they fall an easy prey to disease, having been deprived of all their strength in this process of excessive sub-division, which is altogether contrary to Nature. If you are troubled with disease in your gardens, I should advise you to make your gardener take care to collect and burn at once all the haulms and diseased Potatoes, as he digs them; unfortunately, most ignorant gardeners dig these into the ground or throw them in a heap in the garden, little thinking that in so doing they are giving the myriad bacilli of disease which they contain just the chance they wish for to propagate their kind *ad infinitum* in readiness for next season's crop, which is in this way foredoomed to failure. In digging Potatoes there is a wrong and a right way of doing things as in everything else. The right way is to have the wheelbarrow on the ground, and a fire of rubbish burning, so as to convey all the refuse to the fire at once; the tubers which are healthy should be sorted into three lots, the finest and second size being for the table, the smaller Potatoes being for seed, and the tiniest can be boiled for the pigs' or the fowls' food. The Potatoes for the table are best kept in a clamp, *i.e.*, a heap lined with straw (or Brake Fern), and then covered with six inches of soil, which should be renewed once or twice in winter when sharp weather sets in, as heavy rain is apt to disturb the top of it, which is moulded up so as to throw off the moisture. The seed Potatoes, however, need to be kept spread out in a light, rather dry place, as it is not desirable for them to sprout before the right time. The swamp Potato of South America, Solanum Commersoni, is now growing in my garden as an experiment; it has blossomed well, and the flower is so pretty that it is worth gathering for a bouquet, being very much like that of Solanum jasminioides, in pure white; and the foliage is not coarse like that of the ordinary Potato. This interesting plant is now on its trial, and may have a great future before it, for it is absolutely disease-proof, and can be planted with impunity in the most swampy ground, which, in fact, it enjoys, as it is a native of such soil. It has several peculiarities, however, which have to be considered. As the first of these, it takes eighteen months to produce its crop, for the tubers set last April will not be dug until next October, as they only produce small and rather bitter tubers during their first summer, which should not be disturbed in any way, when (the following year) they will produce a very large crop of fine tubers, which lose their bitter flavour in proportion to their size, so it is said.

Each Potato needs several square yards of room to itself (when planted), to allow for the next year's extension; and the soil should be rich, and the position moist. Next autumn I hope to be able to tell you more of this plant from our own experience. The small tubers produced during the first year are useful for seed, but should not be used for the table, on account

CHRYSANTHEMUM PARISIANA.

This is an early variety which flowers at the same time as Market White.

of their bitter taste, besides which they are decidedly expensive at present! If this bitterness can be thoroughly eradicated by good cultivation (as it appears), the second year's crop should be very valuable, especially in districts like those of the West of Ireland, and other damp localities, where the ordinary Potato fails from disease. I think the pollen of this variety might be used with great advantage by our Potato specialists, too, to cross with the common Potato, as in this way a tuber might be generated which would be thoroughly disease-proof, and free from any peculiarity of flavour. This is a hint for those of us who like to make experiments in hybridising, but this work is usually best left to the horticulturists who make a speciality of growing new Potatoes. There is no doubt that a Potato which is still in its youth (having been hybridised, and grown from real seed within a few years) is far stronger than any tuber which has endured the cutting-up process for years; and for this reason it is a good plan to avoid growing the same kind of Potato from year to year where disease is troublesome. Also it is a serious mistake to use the same plot for Potatoes each season, as it is sure to become exhausted, even if there is no disease present. Potatoes need a large amount of potash in the soil, and when they have taken out the natural supply (often in light soils a very deficient one) they should be well manured with muriate of potash (or sulphate of potash where the soil contains little lime) a short time before planting the sets in spring, which will help them to resist disease. They should also be put into fresh ground, where other crops have grown; and this position should be well drained and sunny. The National Potato Society give excellent advice as to this.

Your friend, I. L. R.

water them there. The moss holds the moisture so long that they need much less water than ordinary pot plants. As to the plants to grow in this way, the choice is almost unlimited. It ranges from dwarf Nasturtiums and Cupid Sweet Peas to Orchids and rare stove plants. Ivy-leaved Geraniums are beautiful when grown in this way; so are several species of Begonias; so are many Fuchsias; but, perhaps, the most beautiful of all for the purpose are Achimenes. Combinations—an upright plant in the centre, and trailers round the sides—are often very effective, but they require skill and taste. It is generally safer to have only one species in a basket.

June 30th.—More than a month ago I noticed a good deal of blight on the Pears, Apples and Hawthorn. I also noticed it on the tips of the Box in the edging, and I gave instructions for all the edging to be cut at once and the slippings swept up and burnt. The Box is now tolerably free from the pest, but on the trees it is certainly increasing, though many of the infested tips have been removed. It would be a great pity if, after such a magnificent display of blossom, the crop were to be spoilt; yet I am afraid that it will be seriously damaged in many gardens unless spraying is resorted to in time. Again there can be no question that if the fruit is overcrowded the conditions are favourable to the continuance of an attack—by giving safe harbourage to the insects among the clustered stalks. Ensconced there, they cannot easily be washed out by rain, or reached by insecticides. For this reason, if for no other, thinning is advisable. But it should be done soon—as soon as possible after the fruit has set.

July 1st.—I have been looking at some highly magnified pollen grains. They are very remarkable. Each genus has its own peculiar shape, quite different from any of the others, yet even here, in spite of the minuteness of the scale, there is obviously no haphazard work. For instance, the pollen grains of plants fertilised by the wind are smooth, whereas in plants fertilised by insects they are rough, covered with tiny hairs or spines to enable them to adhere to the bodies of the insects. The variety of shapes is extraordinary. The fact is one which a person who has looked at pollen only with the naked eye cannot realise. Some day, no doubt, each of these shapes will be assigned a reason, and then we shall have gone deep into Nature's secrets.

H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 144.—MR. GEORGE PRINCE, AT THE ROSE GARDENS, LONGWORTH, BERKSHIRE.

IT is in accordance with the fitness of things that an interview with Mr. Prince should be published on the day of the show of the National Rose Society. No name has been longer or more honourably known among Rosarians than that of the grower of the famous Oxford Roses, perpetuated through three generations. Founded more than a century ago by the grandfather of the present owner, though on quite a small scale, the Rose gardens at Longworth, under the direction of his father, the late Mr. George Prince—(who first made a speciality of Roses grown on the cultivated seedling Brier, which stock he introduced into this country, and developed immensely)—became celebrated far beyond the confines of the United Kingdom. Ten years ago Mr. George Prince died, and his son, who succeeded him, has not only maintained the enviable reputation, but increased it. I had intended to go to Longworth some weeks ago, but at the suggestion of Mr. Prince I delayed my visit in order that I might see the Roses in all their glory; and, of course, June is the month in which this pleasure can be most thoroughly enjoyed.

MR. GEORGE PRINCE.

The drive from Oxford to Longworth, upwards of ten miles, is through some of the fairest of English rural scenery, and, as we proceeded on our way in brilliant sunshine, Mr. Prince told me that he combined with the avocation of a Rose grower that of a farmer. The farm, however, which belongs to him, is largely devoted to the cultivation of the favourite English flower; and he rents for that object more acres than he possesses. So extensive are the operations at Longworth, one of the most charming of Berkshire villages, and so much is there to be seen, that we necessarily spent many hours after my arrival among the Roses. Mr. Prince has the advantage of commanding the services as foreman of Mr. E. J. Hicks, who is not merely an expert, but an enthusiast, in his work, and he accompanied us on our rounds.

First of all we went to the ground where the maiden plants, which were budded last year, thrive in their tens of thousands, and turned our attention to garden Roses, for which, as Mr. Prince observed, the demand is still on the increase.

"For instance," he said, as we stopped opposite a pretty specimen of a China Rose, "we bud these in great quantity, because they are Roses which can be grown in any garden. Even with careless looking after, they make a fine show, though they are better pruned. They begin to bloom early in June on the old plant, and continue until the frost comes."

"It might be convenient to name a few of the best of the Chinas here?"

"Queen Mab (soft rosy-apricot) is a very useful Rose for making sprays for ladies, but you will find other varieties elsewhere. We still grow a quantity of the old pale pink, or, as it is called in the catalogue, Common. It will flower anywhere."

Noticing that the plants of Tea Roses were very numerous at this point, I suggested to Mr. Prince that, as he has made these a speciality and thinks that they are the loveliest, we should next look at some of the best.

"Here," he rejoined, "is Beauté Inconstante, which I can strongly recommend. The ordinary colour is crushed strawberry, but it comes nearly white sometimes, and occasionally has a flame of red. Marie van Houtte I consider one of the best garden Roses, besides being fine for exhibition. Madame Chédane (deep canary-yellow) is another. It is very pretty, a constant bloomer, and admirable for a buttonhole."

"What is the name of the dark red Rose resembling a Cactus Dahlia?"

"You mean Princesse de Sagan. That is another good Tea, with a pleasant perfume. General Schablekine is also a highly-scented Rose, deep salmon. Francis Dubreuil (deep crimson) makes a splendid buttonhole, and George Schwartz (very deep yellow, with long, pointed buds, and dark foliage) deserves mention. When it opens, the anthers of the flower stand out well."

"We grow a quantity of Sunrise," continued Mr. Prince, pointing to a lovely delicate fawn and pale salmon Rose. "It is best under glass, and the bronzy-red foliage is quite a feature. Souvenir de J. B. Guillot (nasturtium-red, shaded crimson) is best in the autumn. Near it is Madame Falcot (deep apricot, very fine flowering, and also a good buttonhole Rose). Safrano (apricot-yellow) is very neat also for buttonholes; so is L'Ideal (metallic bronzy-red, quite distinct, resembling only Beauté Inconstante)."

"I see that you grow Homére?"

"Yes, that is one of the oldest, and still one of the best, of Teas. It makes a fine wall climber. Beryl (very deep golden-yellow, with very dark bronze foliage) is a beautiful little Rose for a buttonhole; rather new, and very good—in fact, we cannot get enough of it."

"Have you any seedling Tea Roses of your own which promise well?"

"There is one we have bloomed for two years, and we expect to be able to send it out next year. It is deep terra-cotta, and the base of the petals flushed with gold. The habit is dwarf, but sturdy, and it is very free flowering. We are going to call it Helen Millman, and we think that it will prove an extremely pretty garden Rose. Longworth Fairy, sent out by us in 1902, is in colour distinct from any other Tea. It is a very deep pink, nearly the colour of Mrs. W. J. Grant, with long, pointed buds, very fragrant, and blooms very evenly. A new Rose sent out by another firm is the Tea Rambler, a pretty pink cluster Rose, with glossy green foliage; it is a strong grower, and of very promising appearance."

"Now, shall we go on to the Hybrid Teas?"

"One of the sweetest-scented of Hybrid Teas is unquestionably the white variety of La France, a sport from the original. It blooms right through the season. Close by is Grace Darling, deep rose, shaded with yellow at the bottom of the petals. Liberty (velvet crimson) is a very telling variety, and sometimes good enough for exhibition. Then, there is Madame Pernet Ducher, golden-yellow, splendid in bud, not very full, with dark, glossy green foliage. I think that Madame Abel Chatenay is one of the best Roses for a London garden. It is a strong grower, carmine-rose, shaded deep salmon in colour, has a nice long stem, and is at its best when the flowers are full. For bedding purposes I specially recommend Madame Jules Grolez, a bright China Rose, and a very free bloomer."

"And the pink Rose, striped and splashed with soft carmine?"

"That is Rainbow. It is the best striped Rose we have. As a rule, striped Roses are coarse, but this is delicate, and, while others are only early-summer flowering, this is a perpetual bloomer. Marquis of Salisbury (dark velvety-red) is the pick of the dark Hybrid Teas; but it can only be seen in perfection when there is a bed of it. Everyone likes Bardou Job (dark crimson), which is good for any purpose, whether for bedding, pegging down, climbing, or pillars. It is also good for buttonholes. La France is still to the front."

"Do you cultivate it largely?"

"We have about two thousand five hundred plants. Gustave Regis (canary-yellow, with very long pointed buds) blooms early and late, but is particularly good in the autumn. Captain Christy (delicate flesh), although sent out so far back as 1874, still maintains its ground as a popular Rose. Gruss an Teplitz (bright crimson, with fiery red centre and deep bronzy-green foliage) is a semi-climber, a fine bloomer, and a mildew-proof Rose."

"You appear to have a big supply of Papa Gontier?"

"We cannot get enough of it, and could sell double the number of plants if we had them. Papa Gontier is an exceedingly good Rose in all respects. Gloire Lyonnaise (pale lemon-yellow, with very large flowers) is good for arches or pillars. One of the Hybrid Teas which we sent out in 1894 is Clara Watson (pearly-white centre, tinted pale rosy-peach), an early and late bloomer. Camoens (silvery-rose) is an abundant bloomer. This in one bed, and Marquis of Salisbury in another, make a splendid contrast."

"What would you suggest for a third bed in the way of contrast?"

"Viscountess Folkestone, creamy-white. These three Roses match each other admirably. I must not omit Caroline Testout (pretty soft pink), which is one of the best in autumn and for decorative purposes; also Lady Battersea (cherry-crimson), a lovely Rose and a great favourite among ladies."

"Before we deal with exhibition Roses, you might give me the names of a few Polyantha and other varieties for garden purposes?"

"Eugenie Lamesch is a free-growing dwarf Polyantha, orange-yellow, shaded with rose, and very fine for bedding if masses are wanted. The companion Polyantha, Leonie Lamesch (bright coppery-red), is rather bigger. This in the centre of the bed, and the others round, make an effective show. Electra (bright yellow) is a climbing Polyantha, very good for arches and pergolas; and Madame N. Levavasseur (dwarf Polyantha) is a miniature Crimson Rambler. A Noisette climber, which makes a very fine pillar or wall Rose, and will grow anywhere, is Alister Stella Gray."

"What about Longworth Rambler?"

"We grow that in great quantity. It was raised more than thirty years ago, and lately its popularity has been revived. While the flower is a fine red, the foliage is almost evergreen, and never mildews. Twelve months ago Lord Ilchester bought a couple of hundred Longworth Ramblers to form a hedge. We have also a full row, not far short of a thousand, of plants of Dorothy Perkins. This is a most popular Rose for pergolas, pillars, and arches. Pergolas are increasing in number, and Dorothy Perkins is certainly one of the best Roses for them. A Rugosa Rose which deserves recognition is Madame Georges Bruant, pure white, very sweet-scented. Another of this kind, Fimbriata (white, delicately shaded with pink, rather like a Picotee), is semi-double and very pretty. Garden Roses should also include the Moss varieties, of which the old Pink, or Common, is the best. White Bath is the best of the white, and Quatre Saisons, also white, blooming in large clusters."

"I see that you grow the Green Rose?"

"Yes, we sell about a couple of dozen of Viridiflora every year. It is really a malformation, grown just the same as other Roses. The flower, although perfectly formed, is absolutely green, and the perfume is merely that of the foliage."

At this point we made our way to the exhibition Roses, prominent among which at Longworth is Souvenir de Pierre Notting, for which Mr. Prince was awarded the gold medal of the National Rose Society at the Temple Gardens in June, 1902.

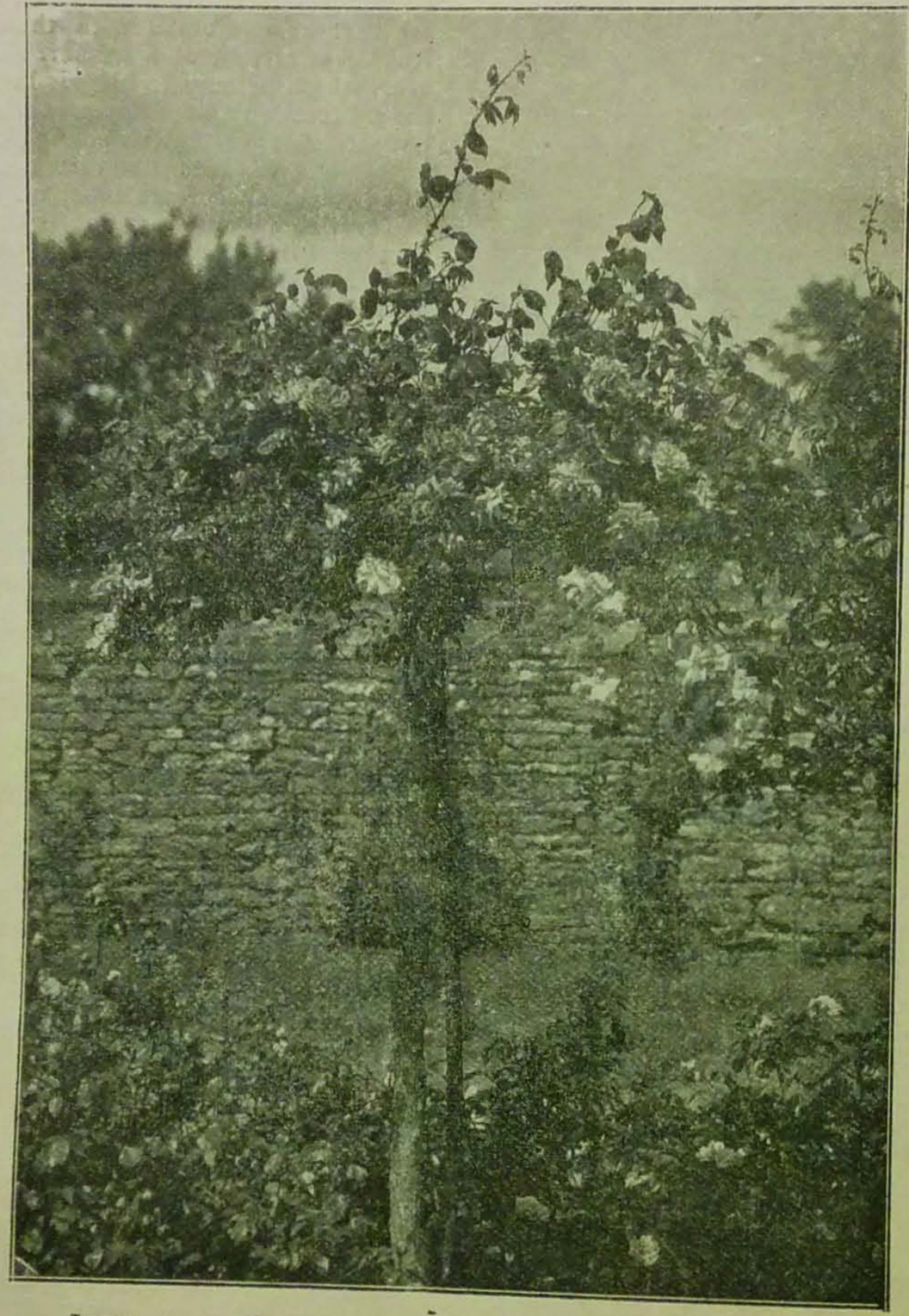
"We brought the Rose from Luxembourg," he said, "and it is a cross between Maman Cochet and Maréchal Niel, apricot-yellow, with a deep golden centre, very sweetly scented. It is a grand Tea, and might be called the yellow Maman Cochet. Mildred Grant, Hybrid Tea, is a big prizetaker at all the shows. So is Bessie Brown, one of the best of exhibition Roses. In wet weather both it and Mildred Grant must be taken care of. Mrs. W. J. Grant (Hybrid Tea), Madame de Watteville (Tea), and Marquis Litta (Hybrid Tea), are three fine exhibition varieties."

"Do you find that the shade you use for your own exhibition Roses answers the purpose well?"

"It is most useful. The inventor is Mr. R. E. West, of Reigate, a very successful exhibitor of Roses, and it is called 'West's shade,' after him—in fact, he patented it. The stake is four feet high, the cone attached is made of galvanised wire, and is covered with linen. The spring is ingenious, but simple, and the shade can be altered to any height."

"Which of the Hybrid Perpetuals growing here do you particularly recommend?"

"Frau Karl Druschki is the best white hybrid



Longworth Rambler Rose Trained Umbrella Shape.

there is. It has the advantage of being most easy to grow. The best red of the new varieties of Hybrid Perpetuals is Ben Cant, deep, clear crimson, upright, and very free-flowering."

"Which is one of the best of the old varieties?"

"Alfred Colomb. Others that can always be recommended are Victor Hugo, Mrs. John Laing, Mrs. Sharman Crawford, Prince Arthur, Margaret Dickson, General Jacqueminot (very old, but still good), Duke of Edinburgh, Dupuy Jamain, and Jeannie Dickson."

We then proceeded to the gardens near the house, noting by the way a fine specimen of Reve d'Or, only three years old, over fourteen feet high and fourteen feet wide. But my attention was quickly diverted by a striking show of Bellefleur, a fiery crimson single Rose, which Mr. Prince brought out in 1901, gaining an award of merit from the Royal Horticultural Society, and a card of commendation from the National Rose Society.

"Do count the flowers on one of the plants in the bed," I said.

"It has eighty-seven flowers on it," replied Mr. Prince, when he had finished. "The plants in the bed are only two years old, and for blaze of colour I do not think that they can be surpassed. The anthers are bright yellow; the foliage is also very pleasing. It is generally considered one of the best of singles; and it blooms twice, in June and about the end of August."

"You have some more exhibition Roses here?"

"A number. Princess Beatrice (Tea—rich golden-yellow) is one of the best. We are supposed to grow Comtesse de Nadaillac as well as most people. The soil here suits it. We make a point of thinning our exhibition plants well out. On a large plant standing five feet high we only allow about a dozen flowers. White Maman Cochet has a good depth of petal, and, like Maman Cochet, is a very strong grower."

"When was Souvenir de S. A. Prince raised?"

"In 1889. It is both a fine exhibition and a fine garden Tea Rose, pure white. Close by is the mother of Souvenir de S. A. Prince, which was raised in 1846 in France. It is called Souvenir d'un Ami, and is pale pink rose, very free and hardy, with large foliage. Mrs. Edward Mawley is one of the best Teas for exhibition. Perhaps it may interest you to know that many medals have been won by plants grown on the east wall. Growing in this garden is Marie Corelli, which we sent out in 1900, deep salmon-pink; and Madame Alfred Carriere, a fine climbing white Rose which will grow anywhere. The Longworth Rambler, growing over an old shed, blooms to the end of the season, and is evergreen."

The first object that caught my eye in the show garden opposite the house was Longworth Rambler in another form, trained umbrella shape.

"How many feet is it across?" I inquired.

"About four. Another Rose which does well trained as an umbrella is climbing White Pet. The same may be said of Crimson Rambler."

A great feature in this garden is a pegged-down bed, where strong-growing climbing Roses are pegged down, forming a mass of flower, and might be described as a carpet of Roses. The following varieties were doing well:—Madame Isaac Periere, Reve d'Or, climbing Malmaïson, Madame Gabriel Luizet, climbing Captain Christy, Madame Berard, Bardou Job, Thalia, Euphrosyne and Moschata alba.

"These," said Mr. Prince, "I can strongly recommend. Polyantha grandiflora is a fine pillar Rose, suitable for a large garden, hedges, or shrubberies. Queen of the Belgians is both a very climber and a good buttonhole, while Rosa rubrifolia, a foliage plant, mixed with the golden-yellow Rose, George Schwartz, is singularly effective."

"You have a magnificent specimen of Ruga?"

"Yes, it is about four years old, and has thousands of Roses upon it. The blooms are at their best about the end of June. That specimen is quite twenty-five feet high. Ruga is very easily grown. The only condition of success is that it should have plenty of space. Aglaia is also suitable for gardens of considerable size. The lemon-yellow flower lasts well after it has been cut. Red Copper Brier will grow anywhere, and Harrisonii, the Austrian Brier, is suitable for small gardens. It is absolutely hardy and does not require to be pruned."

"I cannot ask you to name all the different kinds which are represented in this garden, but I shall be glad if you will name a few more of the most striking, not in any particular order."

"You can judge from the twelve plants of climbing White Pet in the centre that it has great merits. Rosa lucida, which has a little red berry in the autumn, with its pale lavender flower and pretty foliage in the summer, is not often grown. Pissardi is a very pretty white, with yellow anthers. It begins to flower in June. Another very beautiful white is Purity, sent out in 1898, and one of the new Roses—new in 1902—is Peace, lemon-white. Papillon, a Rose that looks very well by the side of W. A. Richardson, is a Noisette, with variations of colour from rosy-peach to pale rose. But in this half-acre there are about five hundred varieties, so you can imagine the difficulty of selecting names."

But Roses grow everywhere at Longworth—even under a thatch I saw a flourishing specimen of Bouquet d'Or, and in another garden were a vast number of seedlings and maiden standards. Five acres are devoted to seedling Briers, which are, of course, a leading feature.

"In each row," said Mr. Prince, "there are more than a thousand Briers, and ninety per cent of them are alive."

"They appear to be in a most flourishing condition."

"The main point is that, owing to the soil being sandy loam, their roots are so fibrous and so good that afterwards they will flower in any soil. As to number, I suppose that there are 111,000 of the dwarf Briers, and 25,000 of the standards."

"Do you care to give any hints as to cultivation?"

"The preparation of the soil is a vital matter, and good farmyard manure cannot be excelled. Cow manure especially suits the Teas, and our special Rose manure applied as a top-dressing to established plants produces most satisfactory results. Pruning should be done in March if the season will permit. Longworth being situated on the very top of a hill is a reason why the plants grown by us are exceptionally healthy and vigorous. They have met all the rough winds they are likely to encounter before they go away from here. The more a Rose is coddled in a nursery, the less likely it is to flourish elsewhere."

"Cleanliness, I presume, is very necessary?"

"Most important. We pride ourselves on keeping the gardens clean. There is one point which may surprise you. Although the sale of our Roses has increased so much, we do not get any more money for them, the competition has so greatly increased."

"And yet your record in the way of prize-winning must be almost unique?"

"We have been taking medals and awards for many years at all the principal Rose shows. Certainly, the number is upwards of a thousand."

"How many did you take in 1903?"

"Sixty, and this year we have taken the silver medal for a group at the Royal Botanic, a silver Flora medal at the Royal Horticultural show, three first prizes at York, two seconds and one third, and two firsts and one second at the Oxford Commemoration Show. We send Roses to all parts of the world, including the Far East."

ALFRED WILCOX.

# Letters from a Lady Gardener.

## No. 101.—CLIMBING ROSES, AND RAISING SEEDLINGS.

DEAR KATE,—Last year, in October, as I think I told you, we put in a lot of new climbing Roses on arches in the garden. They are now in bloom, and Noella Nabonnand is a great beauty, with big Roses in rich crimson velvet, a most uncommon colour in climbers. It is very vigorous, too, making fine growth already, so that I can well recommend it. Amongst the Wichuriana Roses I think Dorothy Perkins, with masses of salmon-pink double but small Roses, is one of the best. Pink Roamer is not satisfactory, being of that horrid magenta tint which I specially dislike, besides which it is a poor flower; but Jersey Beauty is very pretty, a single Rose, in creamy-white, with a large mass of yellow stamens. Then, Lucy Bertram, one of Lord Penzance's Sweet Briers, is really lovely, such a rich brilliant red, semi-double, with a white centre, and golden anthers. Lady Penzance has smaller flowers, but of a most uncommon colour, yellow in the centre, and coral-red at the tips of the petals; the foliage is most fragrant, so that you can detect its scent after a shower several yards away; and the arch with these two Sweet Briers is delightful.

Everyone should grow climbing Roses on arches. When mine grow a little higher, I am going to sling chains (or tarred ropes) between them from near the top of the arches, as these are most picturesque and uncommon when wreathed with the Clematises and Roses which we put in at either side of the arch. Some years ago I sent you a photograph of posts and chains wreathed with climbers in my garden; now I send you another, wreathed with climbing Roses. I am sure you will be pleased with the effect if you plant them in the autumn.

The garden is looking very beautiful now—masses of herbaceous plants on every side, and I fancy that they are finer than ever, probably in consequence of the wet season last summer. How we grumbled, to be sure! And yet all the time we were getting much good and blessing, for all the crops, especially the Apples and Pears, have benefited largely.

The Choisya ternata, which is so useful to the village brides, has been a perfect snow-shower. I send you its portrait—it had enough blooms for dozens of wedding bouquets until a few days ago, and it certainly is an admirable shrub, for its foliage is handsome at all times, being so bright in tint and shining; and before the autumn it will be in flower again.

We are all establishing little colonies of cuttings and seeds in our windows, trying who can manage them best; for it is now possible to raise many so-called "half-hardy" seedlings, either by the use of a propagator, or later on in the season without this help, for in July the ordinary temperature becomes warm enough for the purpose. But, at present, a small (and it may be home-made) propagator will be found very useful, but it is also necessary to understand how to manage the whole process. Small, shallow boxes (about six inches by four) will be found to be the best receptacles for seeds, and these can be procured very cheaply at the grocer's. A layer of ashes (preferably burnt wood, but coal ashes will do) at the bottom of the box should be covered with rough, fibrous loam (or the fibrous part of peat), and this made fairly flat (without great pressure) before covering it to the depth of half an inch (or more for large seeds) with very fine soil, consisting of one-third each of leaf-mould, loam, and sand. A tin strainer (such as is in use in the kitchen) with fine holes is useful for this, or a Potato-masher answers the purpose well; for very fine seeds (such as Begonia) the soil cannot be too fine, but in this case it should not be more than a quarter of an inch deep. Having watered the whole with boiling water (to destroy all germs of insects or weeds), the surface must be made quite flat with the back of the trowel; and the seeds can be sown in about twenty

a stem, not only in its origin, but in not branching symmetrically and in having no normal leaf-buds." This, again, is open to question. Professor Henslow states that "roots and stems are structures differentiated from a common and fundamentally identical type," the cause of the differentiation being the difference in the conditions, stems growing normally in the air, and not in the ground. He mentions several instances of roots becoming stems when the usual conditions were changed. Rhizomes are very often—though erroneously—spoken of as roots. The running, underground stems of such plants as couch and thistle are also confused with roots. Professor Henslow divides roots into two classes—those whose function is to store food materials, and those whose function is to gather them in. The latter may be called the true roots.

#### PRONUNCIATION PUZZLES.

July 25th.—Many plant names are very puzzling. One often hears them pronounced in a number of different ways. While, however, there are many wrong ways, there is only one right way, and it can easily be determined if only the derivation of the name can be ascertained. For instance, there is Halesia tetraptera, popularly known as the Snowdrop-tree. Probably nine persons out of ten, ignorant of the origin of Halesia, would pronounce it Ha-le-si-a, with the accent on the second syllable; whereas if they were aware that the plant was named after Stephen Hales, a horticultural writer whose works were published in the first half of the eighteenth century, they would know at once that the proper pronunciation was Hales-i-a (the second syllable short). Very many similar difficulties can be solved in the same way, though in some cases a change has been brought about by popular usage. For instance, as the Dahlia was named after Dr. Dahl, this word should be pronounced Darl-i-a, but this would not be regarded as pedantic. H. C. DAVIDSON.

## MARIGOLDS.

Marigolds, or Calendulas, are gorgeous flowers when well cultivated, and they produce blossoms continuously until winter arrives. For many positions in a garden they are simply invaluable, and if the best varieties are obtained, no place is too good for them. It is their hardiness, vigour, and vivid colour that makes them cherished most for shrubbery spaces and semi-wild borders.

Calendula officinalis is the name of all, this being the common orange single Marigold, which, with its velvet-brown centre, is an artistic flower that nobody should despise. Meteor is the double striped form, showing apricot and orange, while Prince of Orange is similar, only deeper and brighter in colour. Orange King has no stripes, is all richest orange, and very double, also one of the most vigorous growers. Sulphur Queen is a yellow variety of this.

A border of these Calendulas is fine in front of a Laurel hedge or any Ivy-covered wall, because the plants will thrive well against these evergreens, where few other things will flourish. As they are so valuable for gathering, they should be represented at intervals along the kitchen garden borders, yet they are quite handsome enough for bed-filling.

Sown in August and September, they often begin blooming the same autumn, but in early summer of the next year are in splendid condition. They are best sown just where required, but can be transplanted when young, so may be sown in drills in a sunny seed-bed, shaded by tiffany or white paper if the sunshine is fierce, and kept moist for a week or ten days. They can, of course, be sown in spring, but do not bloom so early. They will live in almost any sort of soil, but are best when it has been well dug and sufficiently manured. H. G.

## FAMOUS BRITISH :: GARDENS. ::

### POLESDEN LACEY, DORKING.

*Interview with Mr. H. Prince.*

POLESDEN LACEY, the seat of the Hon. Mrs. Ronald Fulke Greville, lies between Bookham and Dorking, in the most beautiful part of Surrey. The Downs, upon which it is situated, are here upwards of six hundred feet above sea level, and the views to be obtained are entrancingly lovely. The principal front of the house faces east, and looks towards Boxhill; on the south the lawn drops gently away to Dorking Valley, and across this is seen the wooded slopes leading up to Ranmore Common. Many members of the Royal Family have been visitors to Polesden Lacey, and on the south lawn are several "royal" trees. One of these, a Copper Beech, was planted by the late King Edward in 1909; an Abies concolor by Princess Beatrice in 1914; while both their Majesties King George and Queen Mary, when they visited the place in 1915, planted trees of Abies pungens glauca.

POLESDEN LACEY—SOUTH FRONT.

The estate comprises altogether about a thousand acres, most of which is farmed. The pleasure grounds are between seventy and eighty acres, the kitchen gardens and orchards seven acres, and, with the exception of the nine-hole golf course, are under the charge of Mr. Henry Prince, who has been here four years. These and many other particulars Mr. Prince gave me at the outset, when I called upon him a few days ago.

"You must need a large staff to cope with the work," I remarked.

"At present there are fourteen men and boys; but this will probably be increased, for Mrs. Greville wants several alterations and improvements to be carried out, including the making of a rockery and a water garden, which will be started in the autumn. Of course, all the men were called up during the war, but I managed to get half a dozen women and the same number of boys, though even then many things had to go."

Starting from Mr. Prince's house, which is in the south-west corner of the grounds, near to the road running from Bookham, and terminating in a footpath to Ranmore Common, we proceeded first towards the long herbaceous border. This extends for a hundred and fifty yards, and leads towards the west front of the mansion, being backed on one side by an old stone wall, on which Buddleia variabilis Veitchiana is especially fine, while Ceanothus, Jasmine, Chimonanthus fragrans, and Azara microphylla also do well. The principal occupants of the border are Solidagoes, Hollyhocks, Heleniums, Thalictrums, and Achilleas behind, with Delphiniums, Phloxes, Galegas, Erigerons, Aconitums, and other favourite subjects in front, all in many varieties. On the right hand side the border is backed by a low hedge, which does not shut out the view across the valley.

#### BUDDLEIAS ON CHALK.

"The Buddleia," said Mr. Prince, in reply to a remark, "makes enormous growth, and seems to thrive here on the chalk. I cut it back every year in March, pruning to about two eyes, and it flowers profusely, as you see."

"What is the nature of the soil?"

"It is very light, and we suffer badly from drought. Although we have had so much rain, we can do with a lot more here. The soil is very shallow, in some places less than a foot deep, and then you come direct on the hard chalk. The consequence is that water drains away too quickly. The effects of the drought can be seen on this border, which is not nearly so full of bloom as it should be. It was all trenched this spring, everything being taken out and replanted."

Steps on the side, planted with Cotoneaster horizontalis, lead down to the two tennis lawns and the croquet lawn. The banks are covered with pegged-down Roses such as Lady

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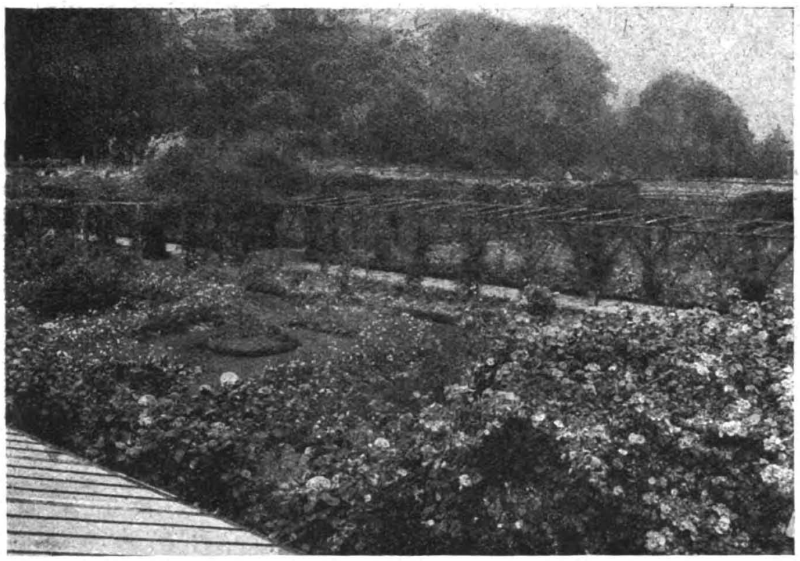
Gay, Dorothy Perkins, and Hiawatha. Across the courts is a shrubbery, consisting of choice Lilacs, Spiræas, Weigelas, and other shrubs; and close to this is a collection of Japanese Acers, in many rich colours. Although the gardens are so high up, and are fully exposed to winter's blasts, only four of these have been lost in the past four years. Beyond the shrubbery is a bank of Crimson Rambler and Lady Gay, which is never pruned, but allowed to run wild, and was now a riot of colour.

#### A FINE BLUE-FLOWERED ANNUAL.

At the end of the herbaceous walk we turn to the right, into the Lily Garden, a quadrangular lawn enclosed on three sides by Yews and other trees. On one side the Yews have been so trained as to form a large arbour, through which the sunlight filters dimly.

"Though called the Lily Garden," said Mr. Prince, "there are no Lilies here now. They went off three years ago, and the border where they used to be was left empty. But this year I thought I would fill it, and sowed the annual Salvia, Bluebeard, three feet high, which makes a fine show of rich blue. It was sown in March, pricked out into frames and boxes, and planted out in May. It is splendid where a strong blue is required. I save my own seed each year."



THE ROSE GARDEN, POLESDEN LACEY.

Just beyond the end of this garden seven winding paths converge, all leading through the woods at the back; but we do not explore these, turning instead to the left, and coming out to the lawn on the south of the house, which as I have mentioned, looks across to Ranmore Common. On the opposite side of the valley, which also belongs to the estate, many trees are planted with a view to autumnal effect. Walking up the slope, we looked at the "royal" trees, and arriving at the summit, were able to appreciate to the full the glorious panorama opening at our feet, and extending away to where the skyline is broken by the trees surmounting the distant hills.

#### HANDSOME TREES.

Then, giving our attention to the house and its immediate surroundings, a lovely Copper Beech of great size and faultless shape, glowing with its richly coloured foliage, was noticed on the west side; while on the south-east corner a noble Cedar, with a girth of sixteen feet, is a conspicuous object. The situation is very exposed, and some of its limbs have suffered in consequence, but it still remains "a thing of beauty." Not far from this are several stately Beeches. Ampelopsis and Magnolias clothe the walls on the south front of the house, while the borders are filled with purple double Stocks.

Crossing the lawn to the left, we look along the Pergola Walk, a quarter of a mile long, leading into the Dorking Drive, and having on one side a hedge of Yews, and on the other tall trees of various kinds, but chiefly Beech, which predominate in this part of the grounds. Striking off to the left, under these trees, we come to the end of another grassy walk—known as the Nun's Walk—bounded on each side by Yews; and then make our way out to the lawn on the main front, facing east. Here the climbers include blue and white Wistarias, Pyrus japonica, Jasmine, and Roses on wires. Many choice Cupressus, Abies, and other Conifers are to be seen, and near by is the finish of the golf course.

#### TWELVE ACRES OF LAWNS.

"What is the total extent of the lawns?" I asked.

"There are about twelve acres altogether, but during the last three years many of them had to go, and we are only now beginning to get them right again. You can see by the rough state how different it is from the parts that were mown. Some of the lawns were kept mown all through, three boys and a pony-mower being kept going three days a week. They did the work very well, too."

Beyond the house, towards the north, are other walks and avenues. There is one, the Admiral's Walk, composed of very old Beeches; further on is an avenue of Lime trees, planted ten years ago, with the view of forming an arch, which they are gradually doing. Then we come to a clump of Spanish Chestnuts and Walnuts, all bearing well; and again a Beech avenue is seen, and at the side of this a plantation of red Chestnuts, planted thickly, but shortly to be thinned out, to permit of the formation of a collection of choice flowering shrubs. Just at this point many other fine trees attract attention, but turning, we come round to the back of the house, noting a little way off, and hidden from general view by tall trees, the water tower which supplies the house, the bothy (there are ten living here), and the commodious club-room for employees on the estate.

A short walk through the trees brought us to the Bird Court, a cool, shady retreat which gets its name from the Box and Yew, cut into the shape of various birds. From this a long flight of steps leads down to the west front. Facing us, on the lawn, is a fine old Acacia, the upper part strengthened by iron bands, while encircling its foot is a bed of purple Stocks. A little distance behind this is a Mulberry, planted by King Edward in 1907, and now bearing a nice crop of fruit.

Across this lawn, a stone path leads to the Ladies' Garden, so-called from the valuable Italian statuary embosomed in the Yew hedge which marks its boundaries. The marbles are of great value, and are covered up in winter to protect them from frost. The border all round is fillled with Ivy-leaf Geranium Galilee.

#### THE ROSE GARDEN.

Through an opening in the hedge we get to the Rose garden, divided by a pergola into four sections of a quarter of an acre each. The first lot of blooms were over in some of the beds, but in others there was still a brilliant display, and I asked Mr. Prince how the soil was prepared.

"All the beds have been specially made up," he replied. "The old soil was taken out to a depth of four feet, and fresh loam and cow manure put in its place."

"How long do the plants last?"

"Except for the very vigorous sorts, five years is the average life of Roses on this soil. We are going to renew them this autumn."

"Do you plant them in masses of one colour?"

"Yes; that is the rule right through the gardens, as you noticed with the purple Stocks and the herbaceous plants. Everything is grown for decoration and for cutting, and we require large quantities of flowers. Most of the beds have only one variety of Rose in each—one hundred in the large beds, fifty in the small. In two beds on the other side there are one hundred and twenty plants, each one variety, and from them we have cut this season eight hundred blooms, with stems eighteen to twenty-four inches long. After the first flowers are done I go over the bushes and give a sprinkling of Prentice's Ichthemic guano, which helps them on with the next lot of flowers."

"Are there any special varieties you favour?"

"No; they are representative of the newest sorts. There is one, Noblesse, which I do not think is sufficiently known. It is a lovely Rose, cream overlaid with a delicate blush. Another good one is Mrs. H. Balfour. Of older sorts, Ulrich Brunner is a good doer; and Caroline Testout is another. This is planted on each side of the centre pergola, which is covered with Dorothy Perkins, while the cross arms have Ramblers of various sorts."

"One quarter of the garden is devoted to dwarf Polyanthas?"

"Yes; they are invaluable for table work. Like the others, they are planted in masses of one variety. Jessie is very bright in colour, and Mrs. Cutbush is an excellent sort. Madame Levavasseur, Annie Muller, and Perle d'Or are other good varieties; and I must specially mention Orleans, which makes a splendid show as a cut flower. It is later in opening than the others, but keeps on till October."

In the centre, where the pergolas cross, is a very valuable well-head, brought from Rome: and the dome above is covered with Lady Gay.

#### HERB GARDENS.

Passing from the Rose garden, we notice outside a good batch of Violets Princess of Wales and Improved Marie Louise, in frames, to give flowers for winter—Violets and Roses are Mrs. Greville's favourite flowers, followed by Lilies of the Valley—and come to two square gardens, like the others enclosed by Yew hedges. They are filled with fragrant herbs, each bed with a different subject, such as Lavender, Santolina incana (Cotton Lavender), Rosemary, and Lemon Balm. The borders carry out the scheme of masses of single colours; for one is filled with Salvia patens, edged with Ageratum; others have Antirrhinums, others Ten-

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week Stocks, which have given fully ninety per cent. of double flowers. The second herb garden is restricted to blue and yellow.

We had now worked round to the point whence we started, but before going in to view the houses, which are hereabouts, we crossed the path, and made for the Azalea garden. That the plants had flowered well was evident, and on my remarking so, Mr. Prince replied:

"Only persistence brings success with Azaleas here, for chalk is fatal to them. We take out the soil and make up the beds—which are in blocks of one colour—with peat and cow manure. Rhododendrons we cannot do at all. We add peat every year, and now and again lift the Azaleas and put in more cow manure. For three nights a week, during the drought in May, we had the hose on them. In the centre beds we have blue and pink Hibiscus, Eleagnus, and Magnolia stellata."

"Have you much glass?" I asked, as we turned back and entered the first house.

### FLOWERS FOR WINTER.

"Not a great deal," was the answer. "Altogether there are twelve houses. In this division we have Perpetual-flowering Carnations, of which we do five hundred. There are most of the leading varieties, such as Mary Allwood, Baroness de Brienen, Carola, La Mode, Enchantress Supreme, Rose Pink Enchantress, and May Day. Snowstorm I look upon as the best white, and Lady Fuller is a fine salmon-pink, with a calyx that does not burst. In this next division I am growing a batch of Schizanthus retusus, which makes a fine table decoration at night. The Hydrangeas will be used to fill big tubs; and the Poinsettias and Coleus thyrsoideus will come in useful in winter. On the shelves above I have Tomatoes, trained on the roof. The winter-flowering Begonias were nearly lost during the war, but I managed to save sufficient for stock. Here is Glory of Cincinatti, a fine winter-flowering Begonia, much better than the type. There are eighty Gesneras in pink and yellow, which do well for indoor decoration, coming back after a few days. Plumbago rosea is also useful, and of this there are a hundred plants. I lost all the Gloxinias during the war, but am now working up a stock of seedlings."

In the stove are a number of Calanthes Veitchii, which come in very useful round about Christmas. Owing to lack of fuel they suffered somewhat last winter, but are now pulling round again. The Croton house, which we next visited, contains a remarkably fine collection, all young plants, in twenty-four different varieties.

"These also," said Mr. Prince, "are handy for decoration in the house when flowers are scarce. One thing learned from the war is that Crotons can be grown with less heat, provided the water can is used judiciously. Less heat involves less moisture. The other plants chiefly grown here are Pandanus, Anthuriums, and Dracæna Sanderiana. At the present time the temperature does not go above sixty to sixty-five degrees."

On the subject of Vine-growing, which cropped up naturally when we went into the early Vinery, and stopped in front of a three-foot trench half the width of the border, Mr. Prince remarked:

"It is, I think, a mistake, when making up a Vine border, not to confine the roots. Here they had got down to the chalk, and the Vines were doing badly, but eighteen months ago I had part of the border up, concreted it at three feet deep, and put in four young rods, which are, as you see, now bearing well. Next winter I shall fill in these trenches, and complete the work. The varieties are Black Hamburgh, Muscat of Alexandria, and Madresfield Court. In the late house are Black Alicante and Muscat of Alexandria, which have come on well with no forcing. Staging has been made so that we can grow French Beans and Peas in the Vineries during winter."

### A LONG SEASON WITH TOMATOES.

In succession we visited two old Peach houses, where Tomatoes were carrying splendid crops, a well-designed Mushroom house, and a very large and well-built house containing pot fruit trees, over four hundred Tomato plants in boxes, and many pot plants, including a fine batch of Campanula pyramidalis.

"How many varieties of Tomatoes do you grow?" I inquired.

"Four ordinary sorts, and a few Golden Perfection. The others are Ailsa Craig, Holmes' Supreme, Perfection (a poor shape and large-sized fruit, but good in quality), and Moneymaker, a very useful and productive variety. We grow, as you see, a great quantity, and keep going with them from May to February. I started last year with three dozen fruit trees in pots—Pears, Plums, and Apples—and hope eventually to make this an orchard house, for which it is well adapted."

Outside, we stopped for a moment to glance at the Chrysanthemums standing on ashes—

MR. H. PRINCE AND HIS GARDEN STAFF.

six hundred large-flowering, four hundred Decoratives—six hundred Perpetual-flowering Carnations, and eighty Salvia Pride of Zurich growing on for next winter, and then crossed a bridge spanning the public road, which separates the kitchen garden from the rest of the grounds.

### EXTENSIVE KITCHEN GARDENS.

The first thing to strike the eye as one descends to this garden are the splendid borders on each side of the main path. They are one hundred and eighty-five yards long and fourteen feet wide, and on one side are skirted by a Sweet Brier hedge; while at the end they terminate in an arbour of Clematis montana. Last year vegetables were grown in these borders, but this year annuals have been substituted. They, in common with the other plants, have suffered from drought, but give promise of great things later on. The kitchen garden itself is divided into four sections of one and a quarter acres each, with another two acres lately taken from a field.

Fruit trees are planted by the hundred. In one section one hundred and fifty have been put in during the last two years. They consist of the best varieties of Apples, Pears, Plums, and Cherries, and as they are still small trees, the ground between them is cropped with vegetables. They run in batches of half a dozen of each variety. Another section—the orchard proper—contains among other things five rows, each with twenty-four Apples, mostly cookers, many Pears and Plums, ninety-six Gooseberries in eight varieties, and all the usual bush fruits. Along the edge of one section are cordon Apples, planted eighteen inches apart. Apples promise to be above the average, thanks to arsenate of lead spray which helped to keep down pests; Pears will be a little below it; Plums, average.

Vegetables are grown in great quantity. Peas are sown every ten days to give a succession, the ground being trenched and well manured. I noticed four rows, each one hundred and fifty feet long, planted with Runner Beans; and a bed with eight hundred Autumn Giant Cauliflowers. Of Celery, two thousand heads are growing. Six rows of early Peas have just been cleared off to make a new Strawberry bed; and other vegetables are on a similar scale. Asparagus occupies half an acre, there being eleven beds, which have farm manure one season, and salt the next.

In the extension to the kitchen garden are early and second early Potatoes (maincrops are grown on the farm), broad beds of Parsnips, Swedes, Brussels Sprouts, Broccoli, and the usual winter greens. Concerning Potatoes, Mr. Prince said:

"I find that it does not pay to save seed even for one year on this soil. I have tried before; and this year have a trial plot containing twelve rows, with six varieties of saved seed, and the same of bought seed. You can see that the saved seed has come up very poorly, and there is no comparison between the two. The other varieties I am growing this year are Midlothian Early, Ninety-fold, Great Scot, and Windsor Castle. As to spring Cabbage, I sowed a thousand, as we cut from nine to ten dozen a week. Harbinger is good, but for general work there is nothing to beat Wheeler's Imperial."

Mr. Prince came to Polesden Lacey four years ago, having previously been at Bishop's Wood, Highgate. He has also been at Downside, Leatherhead; Hillingdon Court, Uxbridge; Bearwood, Berks; Glasnevin, the Dublin "Kew"; and Dartrey Castle, in the North of Ireland.

W. J. CHITTENDEN.

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Mr. C. J. Cradwick, formerly of Hole Park, Rolvenden (who last year distributed seed of his Tomato Cradwick's Abundance), has now been appointed head gardener to Major Faudel Phillips, Stoneyware, Marlow, Bucks.

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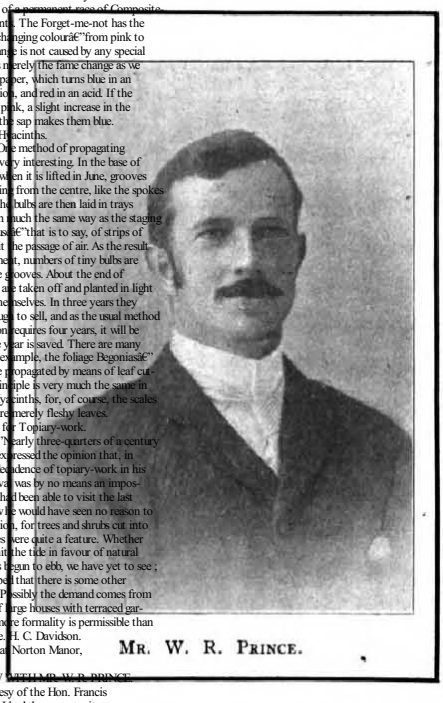
of reducing the chances of the infection of garden crops where a single crop is grown almost exclusively, as in many parts of Ireland.

**Fasciated Forget-me-nots.**

June 10th.—My Forget-me-nots have been remarkably fasciated this year, the sprays of small flowers, especially at the extremities of the



MR. W. R. PRINCE.

shoots, running together to form single flowers of comparatively large size. The phenomenon seems to throw an interesting light on the manner of the evolution of composite flowers, for these fasciated forget-me-nots are practically Composites, each consisting of a tightly-packed group of florets with large ray petals, and small inner petals, the former necessarily arranged in a broad ring of blue, and the latter making a centre of different colour. Fasciation, too, seems to be transmitted from parent to offspring, and therefore capable of being fixed in time; at any rate, there are some strains in which it is common. So we appear to have here all that is necessary for the development of a permanent race of Composite-flowering plants. The Forget-me-not has the property of changing colour—from pink to blue. The change is not caused by any special pigment; it is merely the same change as we see in litmus-paper, which turns blue in an alkaline solution, and red in an acid. If the flowers open pink, a slight increase in the alkalinity of the sap makes them blue.

**Propagating Hyacinths.**

June nth.—One method of propagating Hyacinths is very interesting. In the base of each bulb, when it is lifted in June, grooves are cut radiating from the centre, like the spokes of a wheel. The bulbs are then laid in trays constructed in much the same way as the staging of a greenhouse—that is to say, of strips of wood to admit the passage of air. As the result of this treatment, numbers of tiny bulbs are formed in the grooves. About the end of October they are taken off and planted in light rich soil by themselves. In three years they are large enough to sell, and as the usual method of propagation requires four years, it will be seen that one year is saved. There are many plants—for example, the foliage Begonias—which may be propagated by means of leaf cuttings. The principle is very much the same in the case of Hyacinths, for, of course, the scales of the bulbs are merely fleshy leaves.

**The Demand for Topiary-work.**

June 12th.—Nearly three-quarters of a century ago Loudon expressed the opinion that, in spite of the decadence of topiary-work in his time, its revival was by no means an impossibility. If he had been able to visit the last Temple Show he would have seen no reason to alter his opinion, for trees and shrubs cut into various shapes were quite a feature. Whether this means that the tide in favour of natural gardening has begun to ebb, we have yet to see; it is to be hoped that there is some other explanation. Possibly the demand comes from the owners of large houses with terraced gardens, where more formality is permissible than it is elsewhere. H. C. Davidson.

The Gardens at Norton Manor, Somerset.

INTERVIEW WITH MR. W. R. PRINCE.

BY the courtesy of the Hon. Francis Bower Lyon, I had the opportunity, in May, of visiting the gardens attached to his seat in Somersetshire. Since Mr. Lyon purchased the estate, about two years ago, he has made several changes in the gardens, and some of these are still in process of development. A word should be said about the location of Norton Manor. Within a few miles of the thriving town of Taunton, and but a short distance from the village of Norton Fitzwarren, it stands on an eminence commanding a fine view of the country and of the Quantock and Blackdown hills. There is a background of wood, and the manor is surrounded by a singularly beautiful park. Approached from either

# The Gardens at Norton Manor, Somerset.

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"One of the recent changes," said Mr. Prince, as I commented on the manner in which the trees are shown up, "has been to take out the undergrowth and increase the quantity of grass under the trees. When Mr. Lyon came here, only the heads of the trees could be seen, and he was very anxious that I should make the most of them. Both he and Lady Anne Lyon take a keen interest in their gardens."

"What is the nature of the soil?"

"It is rather heavy loam, but good working soil."

"Apparently it suits Rhododendrons."

"The Rhododendrons you see in flower were

NORTON MANOR, TAUNTON.

the front lodge on the Minehead main road, or the drive from Norton village, the impression created is most favourable, and from the terrace near the mansion the outlook embraces a combination of the most charming Somersetshire scenery.

It was on the terrace that, in company with Mr. W. R. Prince, the head gardener, I commenced making notes—a terrace with slopes planted with tin round to a good depth, the soil being peat and sand."

Then, when I had noticed a Rose border with standards and dwarfs, a delightful nook with a seat on the slopes, an asphalte tennis court surrounded by the woods, and a pretty combination of Wallflowers, Stocks, and Polyanthus in a bed under the Manor library, we descended into the flower garden below.

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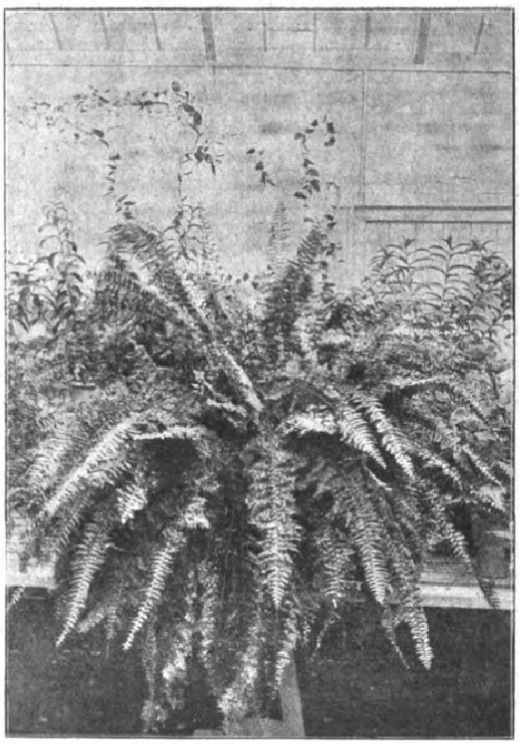
"Here, I should explain," said Mr. Prince, "that my employers are usually only in residence from January to the end of May, when they go to Ridley Hall, their seat in Northumberland, and that therefore, though we keep up the bedding for summer, the earlier part of the year is our most important period."

"You have a fine wall for shrubs in the flower garden, and some fine specimens on it."

"Yes, but we are going to make extensions and additions to them. The Magnolia (Exmouth variety) is very good, and so are the Myrtles and the Clematis montana. These we shall retain, but we shall put in Olearias, Choisyas, more Clematis, Roses, and early spring-flowering climbers. The border underneath consists entirely of Wallflowers and Myosotis. Behind these, the Narcissi are Emperor and Sir Watkin."

CARNATION HOUSE, EASTER, 1909. *Photos by M. Arlidge, Taunton.*



FERN PIERSONI, EASTER, 1909.

**The Flower Garden.**

"In the beds you have a glorious show of Polyanthus."

"These plants were all raised last July. Some of them have twenty-four trusses of flower. I bought the seed in shilling packets, and, as you see, there are the most varied shades of colour, a dainty blue being prominent. In addition to the flowers being fine, the stalks are long. The plants go on blooming for a couple of months."

"You might now, please, describe the combinations of bedding."

"On one side are two beds of Polyanthus and May-flowering Tulips; and two of dark red Wallflowers, edged with dwarf yellow, and dotted with Tulips. The round bed has Pæonies and Delphiniums in the centre, a ring of Eastern Queen Wallflowers with dwarfs (Golden Gem), and an edging of Myosotis. The bed at the end of this side is a Sweet Brier hedge."

"And the large centre bed?"

"In the centre bed itself are blue Polyanthus and Aubrietias, but all the beds round it are filled with the best Hybrid Tea and Tea Roses, chiefly Catherine Mermet, Mildred Grant, Madame Abel Chatenay, Madame Falcot, Margaret Dickson, The Bride, Lady Ashtown, Kaiserin Augusta Victoria, Mrs. W. J. Grant, Anna Olivier, Souvenir de S. A. Prince, Mrs. Edward Mawley, Caroline Testout, Frau Karl Druschki, Madame Lambard, Liberty, Maman Cochet, and La France. At the corner of each Rose bed is a specimen of Retinospora plumosa aurea."

"Then, there are the Rose arches, looking from the mansion to the park?"

"For the four arches, Carmine Pillar, Garland, Leuchstern, and Fellenberg are planted in pairs. The beds on the other side of the centre bed are filled in much the same way as those already described, except that one has a centre of Eastern Queen Wallflowers, edged with a dark variety. There is also a Sweet Brier hedge at the end."

"The general effect, when the Roses are in bloom, should be very striking. Is the design a new one?"

"The beds were designed by Lady Anne Lyon, and the whole work has been done since August. Of course, it has been done thoroughly, and each bed has received a cartload of manure. There has been a good show of bulbs in these beds, particularly of Emperor, Empress, and Sir Watkin Daffodils. At one side of the terrace design are beds with standard Roses, Irises, and Pæonies, all dotted with Tulips, and on each end of the terrace is a very ornamental Cedar."

"What are the features of the design later in the year?"

"Principally mixed Begonias, Zonal Pelargoniums, and Verbenas; also Madame Crousse and Souvenir de Charles Turner Ivy-leaf Pelargoniums, with an edging of Lobelias."

Proceeding to the front drive, I observed a number of vases containing Wallflowers of various colours, on the banks of the drive Azalea mollis in bloom, and here, too, the destruction of the undergrowth has brought out the charms of the numerous English Oaks and Beeches. In the vicinity of the pretty lodge, at the front entrance, where Mr. Prince resides, the spring bedding is much the same as that in front of the mansion. Quite a feature of Norton Manor are the magnificent stables, and the drive beyond is enriched by numerous flowering shrubs, such as Thorns, Laburnums, Berberis in variety, Abies, Parryana glauca, Thujopsis borealis, Wellingtonia gigantea, and Cedrus atlantica glauca, which, in the sunlight, looked quite blue. Azaleas, Rhododendrons, and Heaths tend to augment the beauty of the drive, which is also heightened by a stream that runs right through the park."

**How to Plant an Orchard.**

"Now," continued Mr. Prince, as we reached what is known as the Norton entrance, "you will see what we have done lately in respect to hardy fruit. This is the new orchard."

"When was it planted?" I asked, as I surveyed the trees laden with bloom.

"In December, 1907. One section consists of bush, and the other of pyramid trees. In planting, I made it my business to ensure the fibrous roots being near the surface. Each pit is five feet across; the soil was taken out two feet deep, and replaced with brick rubble, with turf laid on the top of the rubble. It was then mulched liberally with decayed stable manure."

"How many trees did you plant, and how many have you lost?"

"I planted nearly two hundred, and I have only lost eight. The trees are planted about seventeen in a row, at an interval of about twelve feet. They are all Apples, except six

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trees of Pears, Doyenne du Comice, Pitmaston Duchess, and Louise Bonne of Jersey."

"Which do you consider the best varieties for the situation?"

"The best dessert varieties are The Rival, Charles Ross, Coronation, Cox's Orange, King of Pippins, Ribston, Allington, Blenheim Orange, Adams' Pearmain, Wealthy, Gravenstein, and Winter Pearmain; the best cooking apples are Beauty of Kent, Cox's Pomona, King of Pippins, Tompkins County, Lord Derby, Peasgood's Nonsuch, Sandringham, Queen, Bramley's Seedling, Wellington, Lane's Prince Albert, Newton Wonder, and Gascoigne's Scarlet. Of course, the situation, due south, with shelter from the north and east winds, is exceptionally good."

"Well, it would be almost impossible to see a better-looking lot of young trees, and the success of your orchard ought to be fully assured."

### Summer Pruning.

"Between the walled-in kitchen garden and the new orchard is an outside garden, to which Mr. Prince has transferred all the bush fruit. The Raspberries looking conspicuously well. The same may be said of the fruits on the walls, which include Peaches, Plums, and Cherries, and I enquired whether summer pruning was done."

"Yes, at the right time," rejoined Mr. Prince, "which varies according to the district. I find the best time the first week in August, when it is most necessary. But I believe in keeping fruit trees so well under control that much pruning is not needed. There ought never to be any occasion for severe pruning; the trees are better on the hard wood."

"Do you have pyramid Apple and Pear trees along the centre walk?"

"At present; but we contemplate covering in that walk with iron arches, and planting Apples and Pears on the cordon system, doing away with the original trees as the orchard develops."

"Yes, there is a fine opportunity for making a great pergola. What varieties do you grow on your useful Peach wall?"

"Royal George, Grosse Mignonne, Dymond, and Early Rivers, which are all well set with fruit. This Peach wall is to be raised at the earliest opportunity at least three feet higher."

"The Strawberries should do well, judging by their trusses of flowers."

"They were only put in last year, when all the beds were remade. The varieties are Royal Sovereign (which we also force), Leader, and The Latest. There has been a great crop this year of the forced Strawberries, of excellent flavour."

"Do you devote much space to Potatoes?"

"There are three large squares here, as well as one in the outer garden. For early work we use Duke of York and May Queen, and later Up-to-Date and Duchess of Cornwall. The Asparagus beds are also newly made. We begin to cut at the end of April, and go on through May."

"Peas and Beans promise good crops."

"An excellent second-early Pea of fine flavour is Glory of Devon. Other varieties are Gradus and Pilot. We keep up a continual supply of forced dwarf French Beans from Easter to June. The flourishing bed of Lettuce under the Peach wall is All the Year Round, and near to it is a bed of Lilies of the Valley."

### Violets and Chrysanthemums.

"Speaking of Lilies of the Valley, your long bed at the end of the Potato squares is, I conclude, planted with spring-flowering and herbaceous varieties."

"And annuals. I have just planted out Violets under the west wall. The varieties are Marie Louise, Mrs. J. J. Astor, La France, Parma, and Swanley White."

"I notice that you have a number of healthy-looking Chrysanthemums in pots in a sheltered position."

"I am going to show some of those next season. Now we come to the houses."

"Shall we take the fruit or plants first?"

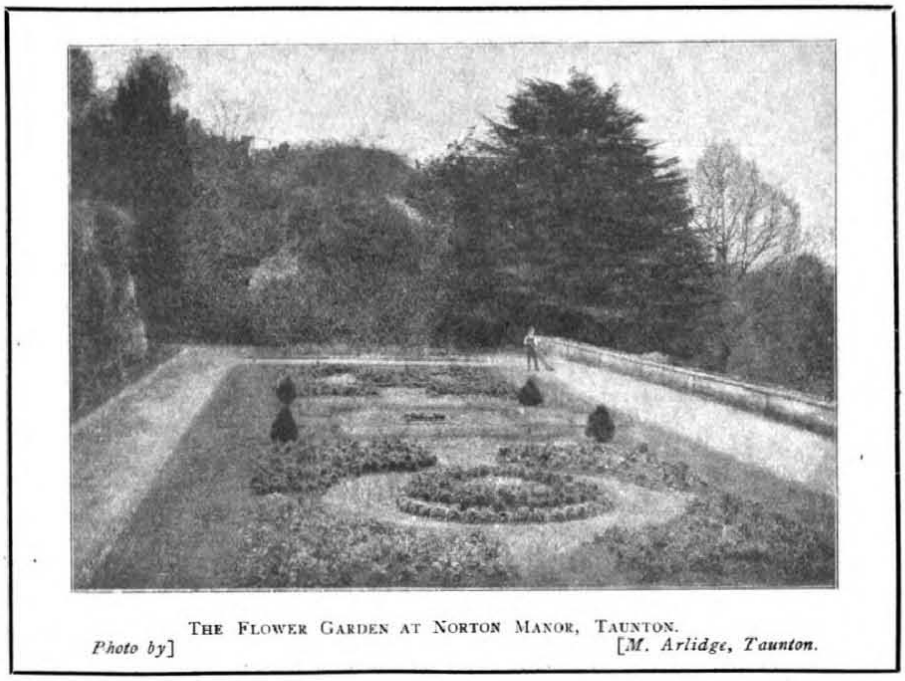
"Plants are the more important feature under glass, but we may as well begin with the Tomato house. The varieties are Winter Beauty and Holmes's Supreme. After Tomatoes follow Melons, Royal Jubilee and Eminence, the latter a splendid variety, with green flesh. Last year we had two crops of Melons. In the house used chiefly for Strawberries are more Tomatoes, Webb's Regina, Carter's Sunrise, King Edward, Eclipse, and A1. I got Regina this year; it is a nice-shaped fruit."

"What about Grapes?"

"In the Vinery, where there are four tubs of Agapanthus umbellatus in bloom, Black Hamburgh and Muscat of Alexandria are grown, and in the Peach house, formely devoted to Camellias, Early Alexander, Hale's Early, Waterloo, and Nectarine Early Rivers. They are grown on the wall and on the trellis, and the trellis fruit will be ready next year. Brown Turkey Figs are grown in another house."

### The Cultivation of Tree Carnations.

"You evidently pay special attention to Tree Carnations, which are now in full bloom, many plants having from twelve to twenty buds and blooms upon them."



THE FLOWER GARDEN AT NORTON MANOR, TAUNTON.
*Photo by*] [*M. Arlidge, Taunton.*

"They were housed early in September. The varieties now in flower are Robert Craig, Mrs. Lawson, Mrs. Burnett, The Beacon, White Enchantress, Enchantress (with blooms four inches across), Britannia, Victory (a charming scarlet), and White Perfection. There has been a great deal of talk about Britannia having disease. My plants, however, are quite clean. All I do to them is to syringe in the autumn with Carvita."

"Can you tell me the compost in which you grow your plants this season in their flowering pots?"

"Three parts loam, one part leaf-mould, one part decayed manure, one part lime-rubble, a small quantity of Thomson's plant manure, and a dash of soot. I use 7-in., 9-in., and 10-in. pots, and take care not to starve the plants when they are in the bigger pots. If the foliage is good, the flowers are invariably satisfactory. These have been flowering since February."

"You have some Malmaisons?"

"Only a few—Lady Rose, H. J. Jones, Calypso, Maggie Hodgson, and the old pink. I do not consider that they will bear comparison with the Trees."

"Do you show the Trees?"

"No; they are grown solely for cutting and house decoration."

### How to Grow Show Pelargoniums.

As we turned our attention to a collection of Zonals, and I observed that the leaves were worth looking at, Mr. Prince said,

"It is the same with Zonals as with Tree Carnations, and, in fact, with all plants. The foundations must be laid in their infancy; that means the foliage."

In the flowering house were several of the Zonals in flower, with huge trusses of bloom. The flowers of Ian Maclaren, Lord Aberdeen, and Lady Laurier were six inches across. Here, on a side staging, were also a fine lot of "Show" Pelargoniums, several of them in flower, and I asked Mr. Prince what was his system with these.

"I grow them as hard as possible, and for the final soil I use two parts loam, one part leaf-mould, some coarse sand, a little bonemeal and a sprinkling of fertiliser."

"Your Liliums in pots are thriving?"

"Yes, they are coming on well. The varieties are L. roseum, rubrum, and melpomene. The Stephanotis in full bloom on the wall is Jamesonii, the Lapageria alba, and Asparagus Sprengerii thrives in the same position. Other plants in flower are winter-flowering Begonias, Schizanthus, and Browallias. Last autumn I had in the flowering house a bank of Browallias and Salvias Glory of Stuttgardt, and the scarlet and blue in combination was very effective. For winter work, large batches of Cyclamen, Primulas, Cinerarias in variety, Azaleas, and many bulbs are grown. The batch of seedling Amaryllis is of my own hybridising."

### Notable Ferns.

"Then, there are your Ferns, which are certainly a notable feature, and include some wonderful specimens."

"I am very fond of Ferns. All these specimens were bought on May 1st last year, in 5½-in. pots."

"And the present pots?"

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" Fourteen and fifteen inches. To mention the sizes of some of the Ferns, Nephrolepis Piersonii is five feet six inches deep, and seven feet in breadth. Nephrolepis Todaaoides is three feet six inches deep, and four feet six inches broad. The measurement of N. Whitmanii is just the same as that of Todaeaoides. The smaller types include Adiantums Williamsii, tenerum, gracilli-mum, and grandiceps. Palms are chiefly repre-sented in this house by Lantanas and Kentias."

" How long have you been in charge of Nor-ton Manor gardens, Mr. Prince?"

"I took charge of them in October, 1907. I was previously head gardener to General Sir R. Pole-Carew at Antony House, Torpoint, Corn-wall, for five years and a half. Antony is a charming seat, with beautiful grounds and gar-dens. I won many prizes for Chrysanthemums, Zonals, Primulas, and fruit. For several years I was engaged in nursery work, where I gained much solid experience, which has proved of great value to me in private establishments."

"The pleasure grounds, kitchen gardens, and greenhouses all show that you take a keen interest in your work."

"I certainly believe that in all branches of horticulture one should do the very best that is possible, and I try to carry the belief out in practice."

ALFRED WILCOX.

DEAR KATE,—In dealing with your sunny terrace, you must choose flowers which can endure drought, unless, indeed, you are prepared to water them constantly and thoroughly, in such a way as to reach their roots as well as their foliage. The terrace borders must be enriched, too, with cow manure, half-decayed leaves, or other moisture-holding material, especially if it should be light, for the evaporation (as well as the drainage) in this position is very rapid, and must be reckoned with in summer.

Chains of Blossom.

If there should be a flight of steps leading from the terrace to the lawn or lower garden, it will be well to span the top step with an arch-way covered with climbing Roses, Dorothy Perkins (the best of the Wichuriana hybrids) being specially suitable for such a position, where the remarkable floriferousness of this Rose is well shown against a distant view, or the sky, in July. The edge of the terrace may be guarded by posts and chains, also covered are two feet above the soil. All of the posts should have a hole burnt through them (with a small red-hot poker) three or four inches from the top, and through these holes a strong tanned rope can be passed, to which the climb-ing plants can be fixed, planting them near the posts. This system prevents the swinging motion of chains or ropes, without secondary lower posts, and the graceful effect of wreaths of blossom drooping between the higher posts is preserved.

The best posts for the purpose (as well as for arches) are of young Scotch Pines, about six inches in diameter, with the bark on. These will resist the damp, and look well for years, if well tarred to begin with, remembering to use plenty of tar a few inches above the soil, for it is just at the point at which the post enters the ground that decay sets in, if tar be not used. Posts of ordinary wood, painted dark green, are also suitable. More posts and chains can be continued on either side of the steps, also wreathed with flowers, and Rose arches can be erected at intervals over the steps (if these should be more than a few), allow-ing about eight feet between the arches.

Plants for Vases.

But many terraces are edged with stonework of some kind; and, again, vases of stone are sometimes set up at intervals, needing to be filled in summer with flowers, although in winter they must usually be empty, as the storms of that season make such an exposed position quite unsuitable. Stone or terra-cotta vases should be at least one foot deep, to hold water, which will need to be often renewed in summer, and they should each contain a taller central plant (or group of plants for a very large vase), such as a Ricinus Gibsoni (bronze Castor-oil), a Grevillea robusta (Silky Oak of Australia), a Palm (if the aspect be not too sunny), a Dracæna, or a Zea (Maize) of the striped Japanese variety. Around this taller plant you may mass Petunias of the new bright pink tints, or Geraniums, adding at the edges some trailing plants to droop over the stonework, such as Campanulas garganica, fragilis, etc. (in blue or white), Fuchsias (which have been cut down in the spring, and have long drooping shoots now from their base), and last, but not least, Ivy-leaved Pelargoniums, which are the best of all plants to endure a position exposed all day to intense heat, for their leathery leaves are not easily affected by it. Madame Crousse is an excellent and most floriferous variety in soft pink, and Souvenir de Charles Turner is still finer, in rich carmine-pink, but not quite so neat in habit.

There are many others to choose from, but these are still of the best, and be sure to avoid those which are too near that most objection-able tint—magenta, which refuses to harmonise with any other warm colour. White, too, is to be avoided for a vase, as it does not show up well against the sky. The double blue Lobelia (Kathleen Mallard) is beautiful, and very effective as a trailer, even more so than the more ordinary single blue varieties, of which, however, that called Azure Blue, in delicate paler shades, is lovely. Where the vase is not above three feet high (and therefore is easy to fill with water), dwarf Cannas are splendid, both in foliage and rich scarlet and gold blossom; but they are amongst the most hungry and thirsty of plants, and, if allowed to starve, they will be a failure.

The soil for a vase should be very rich, and not only must the water supply be ample, but liquid manure should be given once or twice a week, as the vase soon becomes full of a mass of roots, all contending for nourishment; and if these are neglected, the foliage will soon die off, and the beauty of the arrangement will be spoiled. Be careful, in filling a vase, to leave plenty of room for water at the top; no drainage will be needed, as evaporation is quite sufficient in such a position to remove superfluous moisture.

Where there are balustrades or other stone or ironwork at the edge of the terrace, these may be draped with climbers, and for this purpose the old-fashioned Morning Glory (Convolvulus major), with its fairy-like flowers in pink and purple, is charming, and can be sown at once. Lophospermum scandens (with its pretty foliage and soft pink trumpets), Eccremocarpus scaber (in fiery red), Tropæolum Lobbi, and purple Maurandya, are all suitable for the light wreaths which are wanted to drape a balustrade, but they must all have rich soil, and (where they cannot be planted with a free root-run) this should be supplied in boxes about fifteen inches deep. Cobæa scandens and good varieties of the tall Nasturtiums (such as Salmon Queen,

# Letters from a Lady Gardener.

## No. 359.—THE TERRACE.

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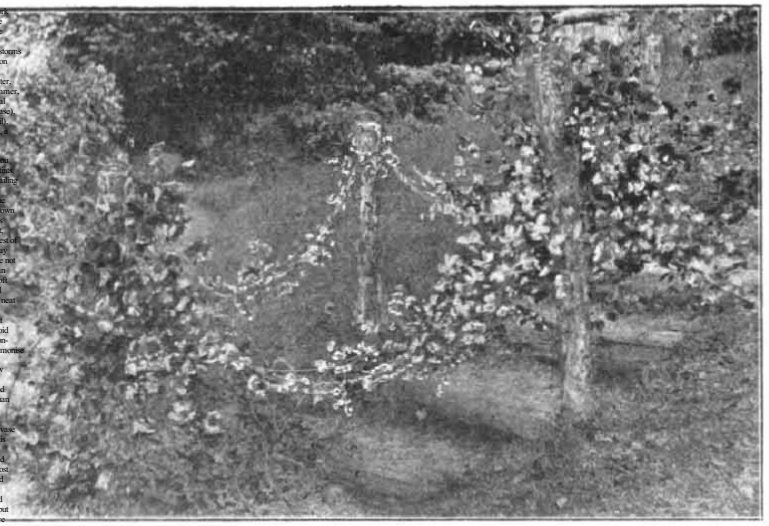

ROSE CHAINS IN THE WRITER'S GARDEN.

**Chains of Blossom.**

If there should be a flight of steps leading from the terrace to the lawn or lower garden, it will be well to span the top step with an arch-way covered with climbing Roses, Dorothy Perkins (the best of the Wichuriana hybrids) being specially suitable for such a position, where the remarkable floriferousness of this Rose is well shown against a distant view, or the sky, in July. The edge of the terrace may be guarded by posts and chains, also covered are two feet above the soil. All of the posts should have a hole burnt through them (with a small red-hot poker) three or four inches from the top, and through these holes a strong tanned rope can be passed, to which the climb-ing plants can be fixed, planting them near the posts. This system prevents the swinging motion of chains or ropes, without secondary lower posts, and the graceful effect of wreaths of blossom drooping between the higher posts is preserved.

The best posts for the purpose (as well as for arches) are of young Scotch Pines, about six inches in diameter, with the bark on. These will resist the damp, and look well for years, if well tarred to begin with, remembering to use plenty of tar a few inches above the soil, for it is just at the point at which the post enters the ground that decay sets in, if tar be not used. Posts of ordinary wood, painted dark green, are also suitable. More posts and chains can be continued on either side of the steps, also wreathed with flowers, and Rose arches can be erected at intervals over the steps (if these should be more than a few), allow-ing about eight feet between the arches.

**Plants for Vases.**

But many terraces are edged with stonework of some kind; and, again, vases of stone are sometimes set up at intervals, needing to be filled in summer with flowers, although in winter they must usually be empty, as the storms of that season make such an exposed position quite unsuitable. Stone or terra-cotta vases should be at least one foot deep, to hold water, which will need to be often renewed in summer, and they should each contain a taller central plant (or group of plants for a very large vase), such as a Ricinus Gibsoni (bronze Castor-oil), a Grevillea robusta (Silky Oak of Australia), a Palm (if the aspect be not too sunny), a Dracæna, or a Zea (Maize) of the striped Japanese variety. Around this taller plant you may mass Petunias of the new bright pink tints, or Geraniums, adding at the edges some trailing plants to droop over the stonework, such as Campanulas garganica, fragilis, etc. (in blue or white), Fuchsias (which have been cut down in the spring, and have long drooping shoots now from their base), and last, but not least, Ivy-leaved Pelargoniums, which are the best of all plants to endure a position exposed all day to intense heat, for their leathery leaves are not easily affected by it. Madame Crousse is an excellent and most floriferous variety in soft pink, and Souvenir de Charles Turner is still finer, in rich carmine-pink, but not quite so neat in habit.

There are many others to choose from, but these are still of the best, and be sure to avoid those which are too near that most objection-able tint—magenta, which refuses to harmonise with any other warm colour. White, too, is to be avoided for a vase, as it does not show up well against the sky. The double blue Lobelia (Kathleen Mallard) is beautiful, and very effective as a trailer, even more so than the more ordinary single blue varieties, of which, however, that called Azure Blue, in delicate paler shades, is lovely. Where the vase is not above three feet high (and therefore is easy to fill with water), dwarf Cannas are splendid, both in foliage and rich scarlet and gold blossom; but they are amongst the most hungry and thirsty of plants, and, if allowed to starve, they will be a failure.

The soil for a vase should be very rich, and not only must the water supply be ample, but liquid manure should be given once or twice a week, as the vase soon becomes full of a mass of roots, all contending for nourishment; and if these are neglected, the foliage will soon die off, and the beauty of the arrangement will be spoiled. Be careful, in filling a vase, to leave plenty of room for water at the top; no drainage will be needed, as evaporation is quite sufficient in such a position to remove superfluous moisture.

Where there are balustrades or other stone or ironwork at the edge of the terrace, these may be draped with climbers, and for this purpose the old-fashioned Morning Glory (Convolvulus major), with its fairy-like flowers in pink and purple, is charming, and can be sown at once. Lophospermum scandens (with its pretty foliage and soft pink trumpets), Eccremocarpus scaber (in fiery red), Tropæolum Lobbi, and purple Maurandya, are all suitable for the light wreaths which are wanted to drape a balustrade, but they must all have rich soil, and (where they cannot be planted with a free root-run) this should be supplied in boxes about fifteen inches deep. Cobæa scandens and good varieties of the tall Nasturtiums (such as Salmon Queen,

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Mr Probert



# The Gardens of Mr. Henry Clay, at Piercefield Park, Chepstow.

THERE was a period in the history of Piercefield Park when it was spoken of as likely to become a royal residence, and this alone would suffice to invest it with exceptional interest. But the delightfully-situated seat which, by the courtesy of Mr. Henry Clay, I had the gratification of visiting on a bright summer afternoon, possesses numerous attractions. Not the least is the spacious and finely-timbered park; and the drive to the house—which, though within a short distance of Chepstow, seems far remote from the haunts of men—forecasts an imposing termination. But the outlook from the mansion, which, in addition to every variety of landscape, includes the Wye and the Severn, is even more beautiful than the approach suggests. It would not be easy to describe the manifold charms of a demesne which covers miles of hill and dale; but those of the pleasure grounds and the kitchen garden can be more clearly indicated.

Mr. Clay, who is within three years of his ninetieth birthday, and still enjoys excellent health, expressed regret that he could not show me round, and, after a short chat, introduced me to Mr. Probert, who for seven years has been in charge of the gardens, and was previously for eight years gardener to the son of his present employer. Mr. Clay had cheerily warned me that there was "not much to see"; but on this point there is room for difference of opinion. The effect at every stage is certainly augmented by natural embellishments, yet it is evident that the gardens are also as well cared for as circumstances will permit. One difficulty is that of soil. As we looked at some of the trees on the lawn, which include fine specimens of Beech, Wellingtonia gigantea, Tulip tree, Cedars, Thuja, and a grand-spreading venerable Oak in the centre, Mr. Probert mentioned that the stiffness of the soil militates against successful cultivation in some directions, and that rabbits are formidable enemies of the bedding.

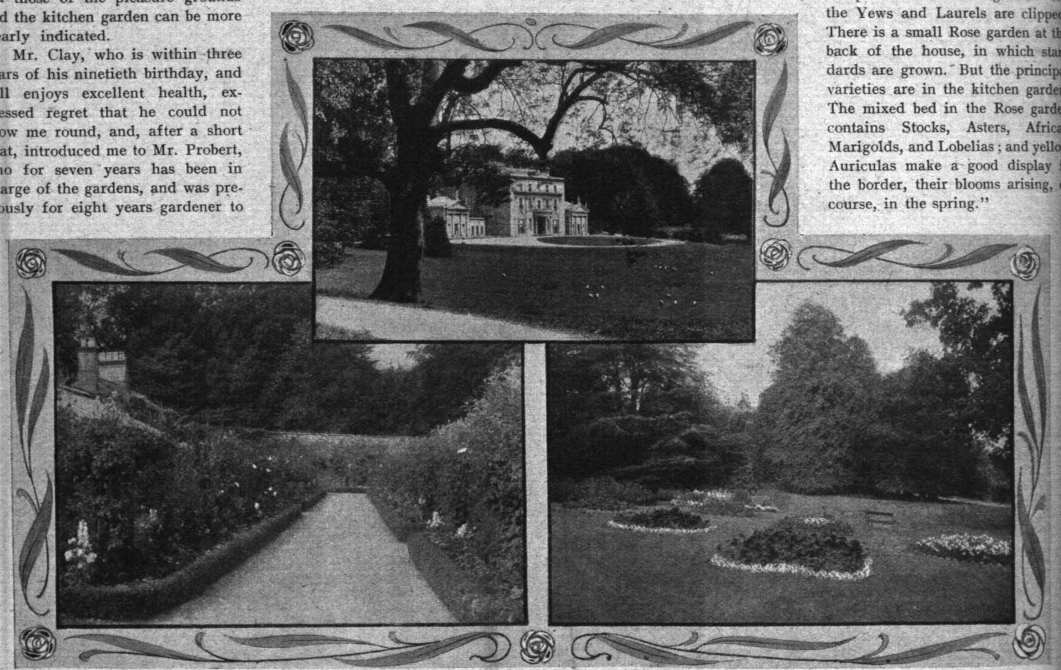
"For that reason," he continued, "we do not attempt spring bedding, which otherwise would flourish. For summer we have to make use of plants which are least likely to suffer from the depredations of the rabbits. They have always to be considered. We killed as many as thirteen hundred in one day."

"I see that Henry Jacoby seems to hold its own."

"Yes, the bed of Jacoby, edged with the Ivy-leaved Geranium Dandy, does very well, and so does Madame Crousse edged with Coleus; Flower of Spring flourishes in another bed, and a new variety, salmon colour, called Vesuvius, with an edging of Dandy is quite at home. Begonias also find the soil congenial. They are mixed as to colour, and edged with Pyrethrum Golden Feather. The next is a "blue" bed, composed of Heliotropes, Ageratums, and Salvias; and a larger one still is occupied with Nasturtiums in variety, and Calceolaria Golden Gem. Yet another combination consists of Cosmos and a Calceolaria in colour resembling Wallflower Blood Red."

"Do you decorate the conservatory?"

"Not with flowers. It is furnished exclusively with Palms, Aspidistras, and foliage plants. In the shrubbery, Rhododendrons and Azaleas are a feature. Hollies also thrive here without any attention except occasional cutting back. All the Yews and Laurels are clipped. There is a small Rose garden at the back of the house, in which standards are grown. But the principal varieties are in the kitchen garden. The mixed bed in the Rose garden contains Stocks, Asters, African Marigolds, and Lobelias; and yellow Auriculas make a good display in the border, their blooms arising, of course, in the spring."



SOME VIEWS AT PIERCEFIELD PARK, THE RESIDENCE OF MR. HENRY CLAY.

Proceeding along a winding path, fitly called the Serpentine Walk, we entered the walled-in kitchen garden, and I at once realised that at Piercefield this is the centre of operations so far as flowers are concerned. The Rose and other borders are on an extensive scale, and the garden itself, which is three acres in extent, is admirably arranged. The standard Roses, edged by Box of a wonderful colour, on each side of one of the walks, at once claimed attention, and I asked Mr. Probert the names of the varieties which do best on the slopes in a high altitude, slightly protected.

"His Majesty is one of the finest now in flower. Lyons Rose is equally satisfactory, and Frau Karl Druschki, George J. Ward, Mrs. Hugh Dickson, Fisher Holmes, Duke of Edinburgh, Madame Sharman Crawford, and Lady Ashtown, usually yield good blooms in quantity."

"When do you clip the Box edging?"

"In April. The precise time to clip Box, if you wish to keep it green all the year round, is a matter of great importance. The clipping should be done early in April, so as to catch the first shoots.

"With regard to climbing Roses, Cheshunt Hybrid is one of the

best for the wall, and others which we depend upon are Captain Christy, Crimson Rambler, Dorothy Perkins, and Hiawatha. At the entrance to the garden Aimee Vibert makes a fine display.

"Behind the bush Roses in the borders are clumps of Sweet Peas, alternating with Cactus Dahlias. There is one variety to each clump. The idea is to flower them when the Roses are beginning to fail. But we get something to bloom here until the frost comes and cuts down everything. In this border, a collection of Pentstemons is a great help, also Larkspurs, Sweet Sultans, and Early-flowering Chrysanthemums. Near the sundial Sweet Williams, Phlox, Delphiniums, and Anchusas are prominent."

### FAVOURITES IN A BRILLIANT BORDER.

"There is a brilliant border at the end of the garden in front of the houses. How is it chiefly made up?"

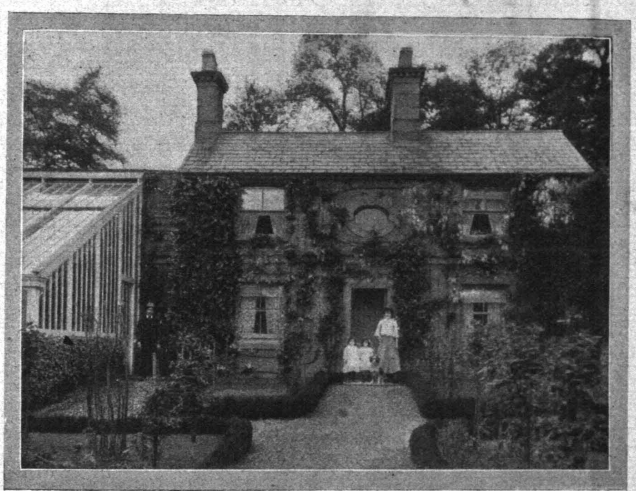
"Just now Stocks are very much to the fore. Other favourites, because of their colour or their fragrance, are Perillas, Clarkias, Verbenas, Godetias, Eschscholtzias, Petunias, Salpiglossis, Marguerites, Zinnias, Lobelia cardinalis, and Sutton's mixed Antirrhinums. Herbaceous varieties and annuals are grown together. There is one border composed entirely of Phlox, and, from the end of July to the beginning of September, it never fails to give a mass of flowers of varying hues. The only treatment we give to the plants is to put a fork between them, and mulch them in the winter."

"The Chrysanthemums promise well, judging by the foliage."

"They are one of our features, and predominance is given to pink varieties, which Miss Clay prefers. But all colours are represented in the collection. We do not grow quite so many singles as doubles, but they do equally well."

"Do you grow Violets in frames and in the open?"

"Yes. In the frames the varieties are Marie Louise and Princess of Wales. The latter is also grown in the open, as is the Russian Violet. But now you may like to explore the houses."



THE GARDENER'S COTTAGE AT PIERCEFIELD PARK.

### PEACHES IN A COOL HOUSE.

"The first is a Peach house without any heat. We had a very fair crop of Peaches inside, but all the blooms were knocked off outside. There are two Vineries. In the early there are three varieties, Gros Colmar, Lady Hutt, and Black Hamburg, and in the late Vinery, Black Alicante, Madresfield Court, and Muscat of Alexandria."

"You have some fine bunches in the late Vinery."

"I think they are satisfactory, but the Madresfield Court are only just colouring. We begin cutting Grapes at the commencement of August, and go on till the end of March. There are borders inside and outside, which I find is an advantage, and tends to increase the crops.

"In the flowering house the varieties, of course, depend upon the season. At the present time, Verbena Miss Willmott, Sparmannia, Tree Carnations, Pelargoniums in variety, Coleus, Lobelia Kathleen Mallard, Carpentarias, and Begonias occupy most of the stages. We also grow a quantity of Impatiens, Fuchsias in variety, and Cacti. This year one variety of Cactus gave us over fifty flowers. We have had the Fuchsias for a number of years, but they are potted afresh every year after they have been cut down.

"In the stove I suppose it might be said that the Gloxinias are the most important collection. About fifty of all shades of colour, from deep blue to light pink, are grown. They are treated in the ordinary way, with a little extra heat. They are all Sutton's strain, and the colours are very pleasing. Streptocarpus, Amaryllis, Dracænas, Ferns, Asparagus in variety, Aralia Sieboldii, Abutilons, and two fine plants of Cycas may also be mentioned; and perhaps you may care to add tuberous Begonias, for which last year we obtained first prize at the local shows. Callas repay us for careful cultivation. I have cut as many as sixty blooms in one day."

### THE BEST APPLES AND PEARS.

"You grow fruit of the hardy sorts in the adjoining orchard?"

"Most of the standard Apples and Plums, but a good deal of fruit is grown inside the garden walls. The Apples, of which, as you see, we have only a moderate crop, are chiefly bushes, and I find that the best dessert varieties are Cox's Orange Pippin, Charles Ross, James Grieve, Ribston Pippin, Gladstone, Beauty of Bath, and Rival. Of cooking sorts, the soil suits Lord Suffield, Peasgood's Nonsuch, Bramley's Seedling, Northern Greening, and Lady Hamilton. For Pears, the crop is ordinary, rather than bad. This applies to the fruit on the espaliers as well as on the walls. The best of all varieties are Pitmaston Duchess, Marie Louise, Acton Incomparable, Marie Benoist, and Jargonelle. We have had a very fair crop of Strawberries. Tomatoes Best of All and Up-to-Date are grown in pots, but I can find no better variety for early work than Chemier's Rouge, which I have grown for three seasons. All the early Cucumbers are grown in the frames, and so are early Carrots, Lettuces, and Cauliflowers.

"Peas and Potatoes are the principal vegetables. We begin picking the first week in June, and very often continue the supply until November, the varieties in succession being The Pilot, Thomas Laxton, Duke of Albany, Alderman, Autocrat, Gladstone, and Ne Plus Ultra. The earliest Potato is Sharp's Express, and the others Rivers' Ashleaf, Duke of York, The Factor, Duchess of Cornwall, King Edward, British Queen, and Up-to-Date. The Onion beds are on rather a large scale, and special attention is given to Ailsa Craig, Cranston's Excelsior, and James's Long-keeping."

"Do you show Onions?"

"Yes; Onions, Tomatoes, and a number of other vegetables. When I am not exhibiting I generally judge at the local show. The interest in horticulture is very keen, and I am glad to say that it is steadily increasing."

ALFRED WILCOX.

Next week:—Incidents in the Life of Mr. Charles T. Druery, V.M.H., F.L.S.

## NEPETA MUSSINI.

**An Excellent "Utility Plant," with Pretty Grey Foliage.**

The value of this old plant has again become recognised, not only for borders, but also for planting on walls and even as a carpet to beds of shrubs and Roses. It is perfectly hardy, has beautiful grey foliage, and mauve flowers closely resembling those of Lavender.

It produces shoots in great profusion, and by means of those which have not flowered it may be propagated to any extent at this season. Cuttings, about three inches long, should be taken off below a joint, and have the other two lower pairs of leaves removed. They can then be dibbled into pots, boxes, or the soil of a cold frame in a mixture of loam, leaf-mould, and sand. Water them down immediately, and keep the frame closed for some weeks. Give air later on.

The rooted cuttings can be planted out in April.

### DIFFICULT PLANTS TO GROW.

September 6th.—Among the most difficult plants to grow in a garden are those which resemble weeds. Even if you attend to them yourself, the chances are that in a moment of forgetfulness you will cut them down; if you employ anybody else, that fate is almost certain to befall them. Not so long ago I had many plants of Œnothera taraxacifolia, an Evening Primrose, with large white flowers; but owing to the resemblance of the foliage to that of the Dandelion, not a single one is now left. I observe, however, in one part of the garden a number of Dandelions neatly planted side by side. The man I had at the time knew what to look for, and thought these Dandelions met the case. I once tried to grow Morina longifolia, which looks very like a thistle. The seedlings

MR. W. PROWTING.

escaped so long as they were in the seed-bed; but when they were planted out, and were nearly flowering size, my man went round with the hoe, and they ceased to exist. Scores of others have gone the same way. Even labels could not save them. H. C. DAVIDSON.

## SISYRINCHIUM STRIATUM.

Here we have an uncommon border plant, yet one which has a certain charm, although not at all showy. Much of its effect in the border lies in its broad, sword-like leaves, resembling greatly those of an Iris. It grows about two or three feet high, and supplies us with a number of small flowers of yellow, occasionally marked with brown, which gives it the name of "striatum," or striped. S. striatum is a border plant, which does not stand unusually severe winters, and occasionally old plants are lost by frost. Seedlings frequently appear beside the old plants, and stand much better than the latter. A dry soil and a sunny place are the best factors for the cultivation of this "striped Satin-flower." It may be bought as plants, or seeds can be obtained and sown in spring under glass, the seedlings being pricked off as soon as they can properly be handled, and planted out where they are to bloom in June. S. striatum flowers for a considerable time in summer. S. ARNOTT.

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# FAMOUS BRITISH :: GARDENS. ::

## HINCHINGBROOKE, HUNTINGDON.

*Interview with Mr. W. Prowting.*

HINCHINGBROOKE, the Huntingdon seat of the Right Hon. the Earl of Sandwich, has a record dating back at least to the time of the Conqueror. Originally a convent of Benedictine nuns, it passed, in the reign of Henry VIII., into the possession of a progenitor of Oliver Cromwell, remaining in the family until 1627, when the then owner, Sir Oliver Cromwell, uncle of the Protector, sold it to Sir Sydney Montagu, whose son Edward was, at the Restoration, created Earl of Sandwich. The mansion has been restored, added to, and altered at different times, and presents a striking and picturesque appearance.

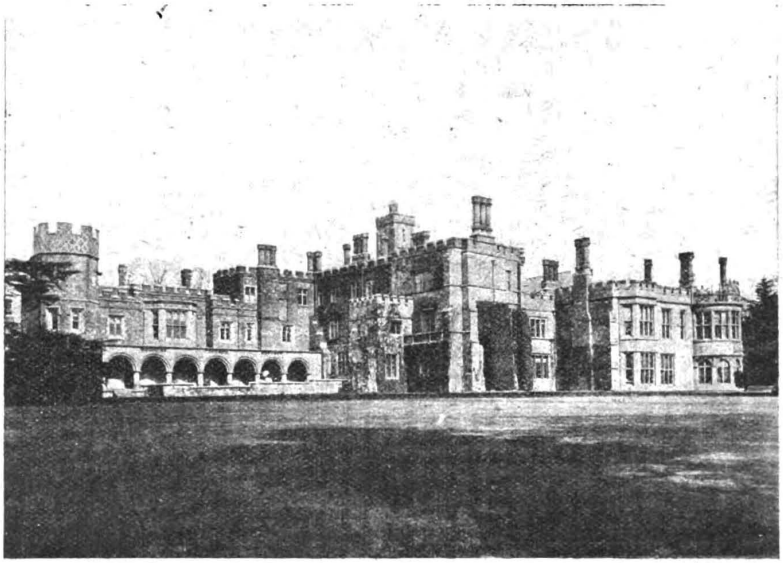
As befits an estate of this character, the gardens and park are extensive, the pleasure grounds covering about twenty acres, and the kitchen gardens four and a half. The late Earl of Sandwich was an enthusiastic gardener, who took an active personal interest in the development of the grounds, and under his direction much planting of shrubs and trees was done, and a Japanese garden laid out on a large scale. For some years before his death he was without a head gardener, and much of the undergrowth got out of hand—a condition which naturally became more pronounced, and extended to other parts of the gardens, when war broke out, and the staff of fourteen or fifteen was considerably reduced. The present Earl—by whose courtesy I was enabled to visit the gardens early in August—is in every way as keen a gardener as his predecessor, and when he succeeded to the estate three years ago he appointed Mr. Walter Prowting as "head." Considerable changes and improvements are contemplated, and some of these Mr. Prowting indicated to me as we walked through the grounds.

Entering by a massive old Gothic archway into the Nun's Courtyard on the east, we noted a number of Orange trees in tubs.

"The walls were mostly covered with Ivy," said Mr. Prowting; "but his lordship has had much of it taken down, as he likes the appearance of the old walls. The Ivy has likewise been taken off the entrance to this courtyard."

"And has it been cleared from the south side also?" I asked, as we turned, and the main front of the building came into view.

"There is very little left. But, as you see, we are not bereft of climbers, for here is a fine specimen of the Dutchman's Pipe, Aristolochia Sipho. This old Pear tree on the wall is said to have been planted by Oliver Cromwell. Of course, it is now only a shell. Then we have Clematis of sorts, Ceanothus Veitchianus, Wistarias, Chimonanthus fragrans, and several other ornamental wall shrubs. The lawn



HINCHINGBROOKE: THE CLOISTERS AND SOUTH FRONT.

on the east, by the way, was in ancient days the nuns' burial ground."

A wide, gravelled terrace skirts the south lawn, and beneath this runs the high road. The lawns on each side are of great width, and the broad effect has been intensified by the clearing away of many clumps of Laurel and other shrubs, especially towards the west, so that the fine trees on the edge are given their due prominence. Especially noticeable here is a grand old Cedar, whose branches sweep the ground. Beyond this lawn are the woods, and behind these, at the foot of a gentle slope, is a natural lake. But the woods are to be thinned considerably, and it is in contemplation to form a broad avenue through the trees, opening up a direct view to the lake; and other paths will also be made. A visit to this part of the park was, however, deferred until we had gone round the flower gardens.

### BOLD MASSES AND GROUPS.

Bearing round by the south-west of the house we notice the cloisters, in front of which is a paved court, supported by a dwarf wall.

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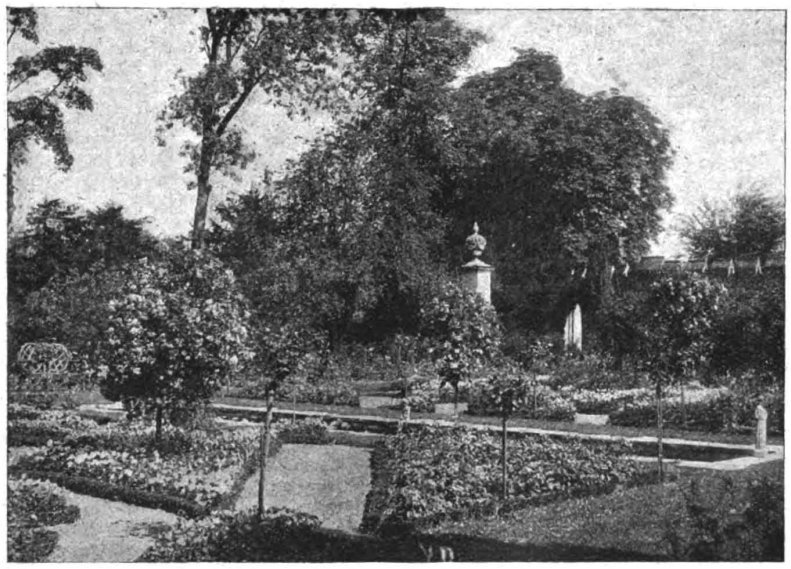
Tubs filled with Geranium Henry Jacoby give a rich tone of scarlet, and here and there on the wall are Junipers of prostrate habit. Between the flags of the court the blue of the Lobelia is very effective, though this will eventually make way for Alpines. Passing along, the next thing to which Mr. Prowting called attention was a long border planted for autumn flowering.

"Lord Sandwich," he remarked, "greatly likes bold groups and masses. For this border we have, amongst other things, Heleniums, Pyrethrum uliginosum, Verbascums, Phlox, and Perowskia atriplicifolia. The best pink Phlox is, in my opinion, Elizabeth Campbell, and the deep violet of Le Mahdi is very good."

Beyond this border the lawn ends, and we come to the Rose garden and two broad herbaceous borders.

"Here are some more large clumps. The masses of blue from the Delphiniums have looked well against the scarlet of Lychnis chalcedonica. Some of the best Delphiniums are Statuaire Rude, Rev. E. Lascelles, Zaza, King of Delphiniums, Harry Smetham, and Dusky Monarch. This clump of Bocconia cordata is very fine; the Monarda didyma Cambridge Scarlet has been wonderfully effective, and so have the groups of Chrysanthemum maximum Mrs. Lowthian Bell. Earlier we had a nice show of Pyrethrums, next to a bed of Viola Maggie Mott; and others that gave good colour groups were Iris ochroleuca and Anchusas Dropmore and Opal."



HINCHINGBROOKE: THE ROSE GARDEN, WITH LILY POND IN THE CENTRE.

### THE ROSE GARDEN.

And now we turned into the Rose garden, which is enclosed by a trim hedge of Yew. It was formerly a Dutch garden, and at the back had an arched wall covered with Ivy and Clematis, and tall columns at each end. The wall has now been done away with, to allow of an uninterrupted view beyond the garden, but the columns remain, and one of them is shown in the photograph. Another alteration that has been made has been the grassing down of the gravel path and the making of a Water Lily pond in the middle. The Lilies were blooming splendidly, and looked so thriving that I asked how long they had been planted.

"About eighteen months ago," was the answer, "when the alterations were carried out, and the Roses were planted."

"The Roses are planted in masses of one colour?"

"Yes; in the beds are fifteen of each variety together. The weeping standards dotting the other beds are Hiawatha, Dorothy Perkins, and Edmond Proust, a fine coppery-rose colour. Underneath these the plants are all blue, and comprise Heliotrope, Salvia patens, blue and mauve Asters, and Violas Kitty Bell, Bath Blue, and Maggie Mott."

### GOOD BEDDING ROSES.

"What are the best bedders among the Roses?"

"Isobel is excellent, and is a lovely thing for decorative purposes. Muriel Dickson and Papa Gontier do well; and Constance is extra good: it is a fine yellow Rose. The scarlet single, Princess Mary, is much admired. Queen of Fragrance is a nice colour, and very sweet-scented, but it is not so robust as I should like it to be. Ophelia is a Rose that should not be left out of any collection, however small; and the same can be said of Lady Hillingdon. Another that is a great favourite, because it does so well and is so good in colour, is Louise Catherine Breslau, which also has rich metallic foliage. Flame of Fire, Madame Leon Pain, Caroline Testout, Irish Fireflame, Red Letter Day, La Tosca, Dorothy Page Roberts, and Mrs. Edward Powell are others that are very satisfactory; and as a standard I find Madame E. Herriot does well."

"Do you have any spring bedding under the standard Roses, where the blue flowers are now?"

"Yes; they are bedded with Wallflowers, Forget-me-nots, and other spring flowers."

### SPRING BULBS BY THE THOUSAND.

We now walked across the lawn and came to the terrace, which, as I mentioned, runs along its south edge. The dwarf wall of red brick, overlooking the roadway, was covered with Ivy until a couple of years ago, but it is intended to have Lavender, Rosemary, and other old-fashioned plants, in irregular clumps, against it. Looking west, we get a good view through the woods, while in the nearer foreground the fine specimens of Cedars, Pine, Larch, and other trees tower heavenward. Under them Foxgloves are naturalised, and in the spring the ground is thickly carpeted with Primroses, Daffodils, hardy Cyclamen, Snowdrops, and Bluebells. How beautiful the scene then is may be understood from the fact that as many as ten thousand and fifteen thousand bulbs have been planted in a single season.

Continuing our stroll beyond the terrace, we passed along the Box Walk—so called from the high hedge of Box on either side, with a mossy path in which the foot sinks noiselessly—and at the end turned sharply to the right, and found ourselves looking across a dwarf wall to a clearing in the woods surrounding the lake. The intervening space contains many tree stumps and other evidences that the Government woodsmen have been here felling the timber, and have left the ground badly cut up.

"Lord Sandwich is going to make many alterations in this part," said Mr. Prowting. "It is intended to plant Willows and groups of other large subjects for colour effects, which will be visible from both ends of the proposed avenue."

Crossing this space we visited the lake, a large sheet of water where Reeds, Irises, and other aquatics are now crowding one another, for, owing to lack of labour, it has not been possible to give them the requisite attention. Hereabouts the land lies very low—Hinchingbrooke is only sixty-five feet above sea level—and in winter the lake, and the stream into which it drains, overflow their banks, and the meadows and fields are under water. Indeed, one winter, some years ago, the stream rose so high as to flood the Japanese garden, which was under water for several weeks, many plants in consequence being killed.

### A JUNE BORDER.

On our return from the lake we pased northwards to the two tennis courts and the croquet court, formerly screened by shrubs, which are now replaced by a retaining wall, on which ornamental shrubs are planted. In front of the wall is a broad border, divided into three sections, and concerning this I was told:

"This is a June border, the idea being to give the best display in that month. The first section has Iris Jennie Mawson and Oriental Poppies; the second, Lupins and Irises; the third, Pæonies and Irises. What used to be the Japanese garden lies just behind."

"And what is to be done here? I asked, as we came into it.

"It is intended to make a rock garden this winter. The Earl is very keen on rock gardening, and this will make a splendid site, the necessary slopes being already made. The stone paths will have suitable plants between the flags, and the little rill running through it will give opportunity for cultivating bog plants and aquatics. Except for mowing the grass, nothing has been done here for years, as labour has been too scarce. Most of the plants originally put in have died out. The woods at the back will be cut down, and flowering trees and shrubs will take their place—some of this work has already been done."

### A NEW SHRUBBERY.

Following this path, we eventually arrived at a rustic pergola, lying due north of the Rose garden. It was made this spring, and is planted with Honeysuckle, green Hop, Ceanothus, Wistaria, Ampelopsis, and Roses Blush Rambler, American Pillar, Carmine Pillar, and Hiawatha. A shrubbery, also planted this spring, is going to be very striking when well established. Even as it is they make a fine effect—the grey foliage of a clump of Hippophæ, for example, contrasting well with the dark green of the Roses above. Many kinds of Berberis, Lilacs, Philadelphus, and other subjects are included, also several Yew trees, and it is interesting to note that, notwithstanding the severe drought, only one has failed.

The entrance to the walled-in kitchen garden is near at hand, and, after turning aside for a moment to examine a splendid swimming bath, lined with white glazed bricks, and with a capacity of thirty-five thousand gallons, we proceeded to look through the houses.

The orchard houses contain Figs, Pears, Peaches, and Nectarines, all carrying good crops except Peach Cardinal, which had already been gathered.

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#### PEACHES AND VINES.

"Two good Nectarines," said Mr. Prowting, "are Pineapple and Early Rivers, and Hale's Early and Duchess of Cornwall are the two best early Peaches. In the second house we have Pears Doyenné du Comice, Pitmaston Duchess, Marguerite Marillat, Clapp's Favourite, Souvenir du Congrès, Williams', and Duchess d'Angoulême, which is, I consider, an especially nice Pear. The Figs on the back are Brown Turkey. We have also an early Peach house, where Brunswick Fig is on the wall. The Chrysanthemums are taken in there later on."

"What are the varieties in this house?" I asked, as we entered the late Vinery.

"Principally Alicante. West St. Peter is a very nice, early Grape, but it does not do so well inside as on an outside border. His lordship is going to turn it out, and replace with Muscats, as early Grapes are not wanted while soft fruits are obtainable. In the next house we have one Canon Hall, two Black Hamburgh, two Madresfield Court, and one Gros Maroc. They used to be forced for early work, and now, although we have had no heat, they cannot be kept back. They seem to have got into the habit of coming earlier than they would otherwise."

"Have you done away with the stove plants?"

"Yes; they were got rid of three years ago, and will not come back. In their place we now have Ferns and miscellaneous plants that do not require much heat. This Browallia speciosa major gives a nice touch of colour, and is very easily grown. If is intended to have another house built, and then we shall go in for Perpetual-flowering Carnations."

#### FLOWERS FOR WINTER.

"What do you rely on for flowers in winter?"

"Chrysanthemums carry us on to February; then we force bulbs. We also have a nice batch of Arum Lilies."

Leaving the houses, we turned next to the vegetables. But before mentioning these, the broad herbaceous borders on each side of the principal path call for notice. They are backed by standard Nut trees and Pears, and in front are filled with hardy perennials, which still give a grand display. Particularly effective is a great clump of the Plume Poppy, Bocconia cordata, twelve feet high, and eighteen feet through. At the end of the path is a Rose arbour, covered with Marechal Neil, Crimson Rambler, and Reine Olga de Wurtemberg, with Clematis lanuginosa and Ampelopsis on the shady side.

The fruit cage is of imposing dimensions, and here a large quantity of Gooseberries—exhibition varieties mostly—and Black, Red, and White Currants are grown. The Pear trees were well laden, and I asked as to the prospects for the fruit crop.

"Taken all round," was the answer, "they are good, Apples and Plums especially. The only Plum that has done badly is Coe's Golden Drop, but that bore well last year. Apricots are poor, but Peaches and Pears are very fair. You can see these Victoria Plums have their branches weighed down with fruit."

"You are making a new bed for Strawberries?"

"Yes; we run the beds only for two years, and then grub the plants up. That is as long as they are worth growing on this soil. Royal Sovereign and Givons Late Prolific are the two varieties."

"You are well provided with heated pits."

"There are five long rows. We use them largely for Violets, and for Melons, Cucumbers, and the usual run of forced early vegetables and salads."

#### UNCOMMON VEGETABLES.

"Do you force much Asparagus?"

"We have not forced any for the last two years. It is a vegetable that is greatly liked, and we have eleven large beds. Another thing that is favoured is Sweet Corn, which is not always used as it should be. Some people leave the cobs on too long, so that they do not cook properly. They should be taken when they are just milky. Seakale is forced in quantity."

"Have you any other vegetables out of the common?"

"I don't know whether you regard the Dutch Brown Bean, which the R.H.S. sent out, as uncommon, but it is very much in demand here, and is liked far better than Haricots, as it does not seem so solid and stodgy in eating. Sutton's Green Gem is another Bean that is good for winter use. It is turquoise blue, but cooks pale green, and is very nice and tender. In height it is taller than the Dutch Brown."

The plantings of vegetables are all on a large scale. A big bed of Onions of various sorts was looking satisfactory; and there were good breadths of Brussels Sprouts, Cauliflowers, and all the Cabbage tribe. Four long double rows of Celery had Lettuce on the ridges. As to Potatoes, a large quantity is grown outside, and Mr. Prowting said the two best earlies are British Queen and Duke of York. Great Scot does well, and so does Arran Chief. Majestic and Sutton's Flourball are growing this year for the first time, and judging from the roots we examined they are going to give splendid crops.

#### BEDS OF HERBS.

There was one other feature here which was worth noting—the two large borders of herbs, which include Balm, Rue, Sage, Thyme, Fennel, Wormwood, Pea Mint, Woad, Hyssop, Horehound, Marjoram, Tansy, Borage, Southernwood, Lavender, and Rosemary. Dandelions are grown for salads, being forced in winter.

Before leaving the kitchen garden I stopped to admire the rows of Sweet Peas grown for cutting, and the borders of annuals, planted to give the colours red, white, and blue. This was made up with Coreopsis atrosanguinea, Clarkia, and Cornflowers. A long border of Carnations Raby Castle and Lady Hermione gives plenty of flowers for cutting, and in front is an edging of Pink Mrs. Sinkins.

The walls are fully utilised for fruit trees, chiefly Apricots, Plums, and Pears. Late Plums are obtained from a north-east wall.

Many other interesting features were pointed out as we walked along. The appearance of the trees in the orchard confirmed what Mr. Prowting had said regarding the bounteous fruit crops, and I was shown the large lawn in front of the old gateway, now grassed down, but during the war used for cultivating Potatoes, German prisoners supplying the labour.

Mr. Prowting has been three years at Hinchingbrooke, coming here from Reigate Priory, Surrey, where he was head gardener for eight years. Before that he had been in a similar position for four years at Lord Richard Cavendish's seat in Sussex; and he has also been at Lord Hillingdon's place at Uxbridge; with Mrs. Gerard Leigh; two years with Lord Plymouth at Hewell Grange; and with Earl Temple at Newton Park, Bristol.

W. J. CHITTENDEN.

## BEDDING PLANTS IN FRAMES.

Quite a good display of bedding plants can be made from subjects raised or preserved through the winter in frames. The serious aspect of the fuel question makes this of the first importance. Cuttings or seedlings may be inserted in a bed of soil in the frame, or, if a number of sorts have to be accommodated, they can be put in boxes.

Amongst cuttings that can be wintered in frames are shrubby Calceolarias in variety, all the Pansies and Violas, Pentstemons, Cineraria maritima (for white foliage), and any choice Antirrhinums one may desire to preserve true to the original plants. Cuttings should consist of strong, fresh young shoots, with about two joints in the ground and the same above, with the point of the shoot intact. Nice shoots of Pansies and Violas can be obtained by cutting the old plants back a little, so that they will produce plenty of young growths in the centre. In damp weather the young shoots can often be pulled away with a little root attached to them. A good sprinkling of sand should always be put in the soil for cuttings, as it not only helps them to root, but will also check damping-off. If the cuttings cannot be put in until October, they will probably still be in very good time.

A splendid bed can be made from Pentstemons rooted in this way, and planted out in April. The tops of the plants should be pinched out when they begin to grow in the spring. The Antirrhinums grow easily from cuttings, although seedlings answer all ordinary purposes. A bed filled with autumn-struck cuttings, or seedlings raised in the autumn, will naturally be at its best much earlier than one with spring-sown plants. This is of much importance if the family is not likely to be at home during August and September.

#### AUTUMN-SOWN SEEDLINGS.

A large number of seedlings may be raised in frames during the autumn, to be planted out in April. Given a mild winter, these would come through safely in the open, but they are worth a little protection. Seedlings of Pansies, Violas, and Antirrhinums are amongst the things worth preserving. But almost any kind or annual that is fairly hardy pays for growing in this way. Nigella, Dianthus, Clarkia, Scabious, and Coreopsis are a few of the things that will flower earlier and much better with such a start. And another great advantage is that they can be planted out long before the rush of ordinary bedding-out. Seed should be sown quite thinly, and if there is not time to prick them off in early spring, they can be transferred to the beds in a small state.

The winter management of both cuttings and seedlings is very simple, and will take up little time. Air should be given them on every possible occasion, for damp will be their greatest enemy. In the dead of the winter they may not require water for several weeks, but when it becomes necessary it should be given on sunny mornings, so that the foliage may dry before nightfall. In frosty weather it is best to cover the lights with some protecting material.

SOUTHERN GARDENER.

## HARDY SHRUBS FOR FORCING.

Now that gardening has become more expensive, one has to try to economise as much as possible. The decoration of the greenhouse is a matter which demands serious attention in this respect, and every chance should be taken of utilising some of the hardy flowering shrubs for this purpose. Lift the bushes with a good ball of soil, pot them very firmly in suitable small pots, shade them for a week or two until they settle in their new quarters, and gradually bring them into a gentle heat. They can, after flowering, be hardened off and replanted again outside. Good treatment and liberal feeding soon bring them back to their former glory.

Deutzia gracilis is a popular shrub, quite amenable to this forcing, the finer sorts being best. Spiræa Anthony Waterer bears a profusion of beautiful, deep crimson blooms in thick, large corymbs. Forsythia suspensa will furnish nice yellow flowers when coaxed into bloom in gentle heat. Prunus triloba flore plena and japonica fl. pl. are two very fine examples of the genus Prunus, yielding red and pink flowers; while Prunus sinensis fl. pl. has double flowers of a nice clear white. Cytisus andreanus is an old favourite, bearing flowers with the superior petals yellow and the lateral ones a dark, velvety crimson.

In the list there might also be included suitable bushes of the excellent Staphylea colchica, with white, sweet-perfumed flowers; Daphne

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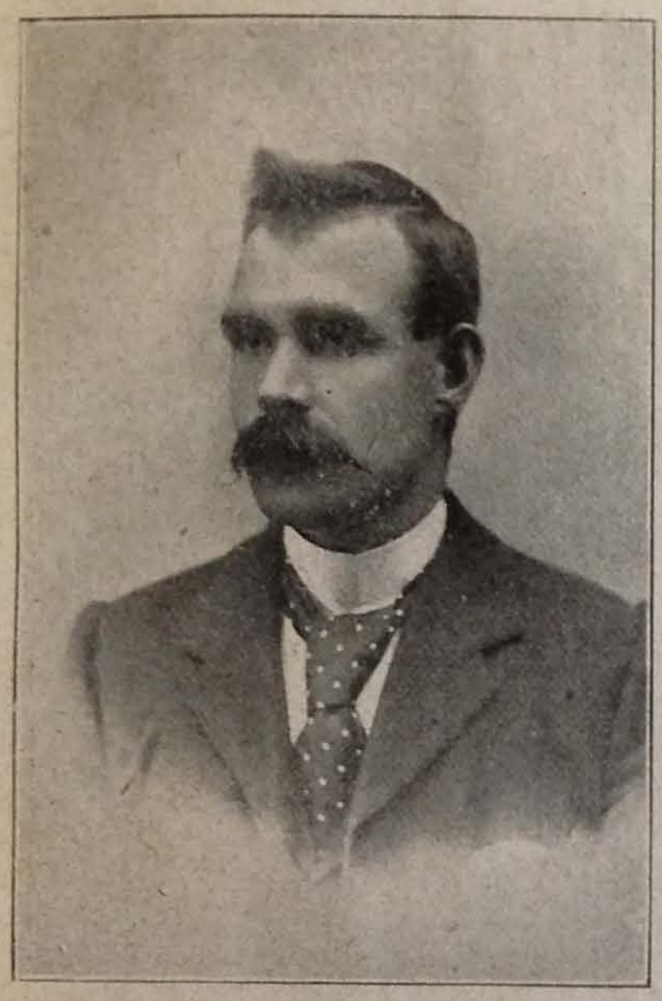
Is this purely a coincidence? Or are both the effects of the same cause—the abnormal warmth of the previous year? Some years ago I mentioned in these notes that wild birds of all kinds had been much fewer than usual, addled eggs having been very common in the nests in



Mr. James Pryde.

spring, and that farmers made the same complaints about ducks and fowls, the result of a sitting having, in many cases, been only two or three chickens. I also pointed out that, in consequence of the unfavourable weather in the previous autumn, there was a very poor show of fruit-blossom. Was that, too, a coincidence? If these coincidences multiply, we shall begin to suspect in them cause and effect.

**Anchusa Italica.**

October 10th.—Last year, at the Temple Show, I greatly admired some plants of the Dropmore variety of Anchusa italica, the clear Gentian blue of the flowers being an immense improvement upon the old purplish blue, and in spring I obtained a small packet of seed, and raised a few plants. I was rather doubtful about the result, for new varieties are seldom "fixed," and it is, unfortunately, not an uncommon occurrence to get a very unsatisfactory lot of seedlings. In the present case, however, I have had a better experience. My plants began to flower early in September—unusually late, but, owing to the cold summer, they had been slow in growing—and the colour was all that it should be, a clear blue. This Anchusa certainly deserves a place in every garden of any size, but as it grows about four feet in height, and the lateral shoots spread a good deal, it requires a fairly large border. It may be grown there at the back, or in an open corner of the shrubbery. The hairy leaves show that it should have a sunny situation. The Anchusas belong to the Borage family. There are two species, A. officinalis and A. sempervirens, which occur wild in some parts of this country, but they are not really natives. Both are very attractive to bees. In A. officinalis the stigma protrudes, while the anthers are half-way down the tube. Thus the insects must come first in contact with the stigma, and some of the pollen which they have obtained from another flower will be transferred to it. As they push down the tube, they then rub against the anthers, and carry away some of the pollen, which will be distributed in its turn at their next visit.

**Effective Borders.**

October 11th.—It is in cottage gardens that one often sees the fullest borders, and many of them are very beautiful, crammed to overflowing with plants, which keep up a supply of flowers for the greater part of the year. The space is so small that it is impossible to attempt anything in the nature of landscape gardening. There is generally one straight path from the gate to the front door, and on the beds bordering this path the attention is concentrated. Of course, if the house beyond is buried under creepers, the effect is so much more picturesque.

H. C. Davidson.

# The Gardens at St. James's, West Malvern.

INTERVIEW WITH MR. JAMES PRYDE.

In all England there are no gardens surpassing in beauty of site those of St. James's, West Malvern. It is now about seventeen years since the late Lady Howard de Walden built herself a splendid mansion, and surrounded it with pleasure grounds in the hollow of the Malvern Hills. The mansion, of Italian design, noble in its proportions, and stately in appearance, with its terraces and cloister galleries, stands eight hundred and fifty feet above sea level. Only those who are familiar with the conditions under which the work was done can realise its magnitude. Of the gardens it may literally be said that the wilderness and the solitary place have been made glad, and the desert has rejoiced and blossomed as the rose. A boggy waste, a stretch of allotment grounds, and a piece of meadow land—these were the raw material out of which upwards of twenty acres, comprising walks, ponds, rockeries, miles of grass drives, and multitudinous other attractions were fashioned at the instance of cunning designers by the hands of an army of men. St. James's is now occupied by the Misses Baird, who in 1902 transferred their school from Crowborough to West Malvern, and under their auspices, with Mr. James Pryde as head gardener, the glories of the magnificent gardens are well maintained.

"Of course," said Mr. Pryde, on the occasion of the visit which I was able, by the courtesy of the Misses Baird, to make to the gardens in July, "we cannot do things just as they were done when Lady de Walden had a staff of between fifty and sixty in the gardens, but we do our best, with a smaller number, to preserve the features which we found here, and to take care that none of the rare trees and plants suffer from lack of attention."

"As to the features," I rejoined, as we made our way from Mr. Pryde's charming cottage, overlooking the kitchen garden and a great range of glasshouses, to the pleasure grounds, "shall we take them as we proceed?"

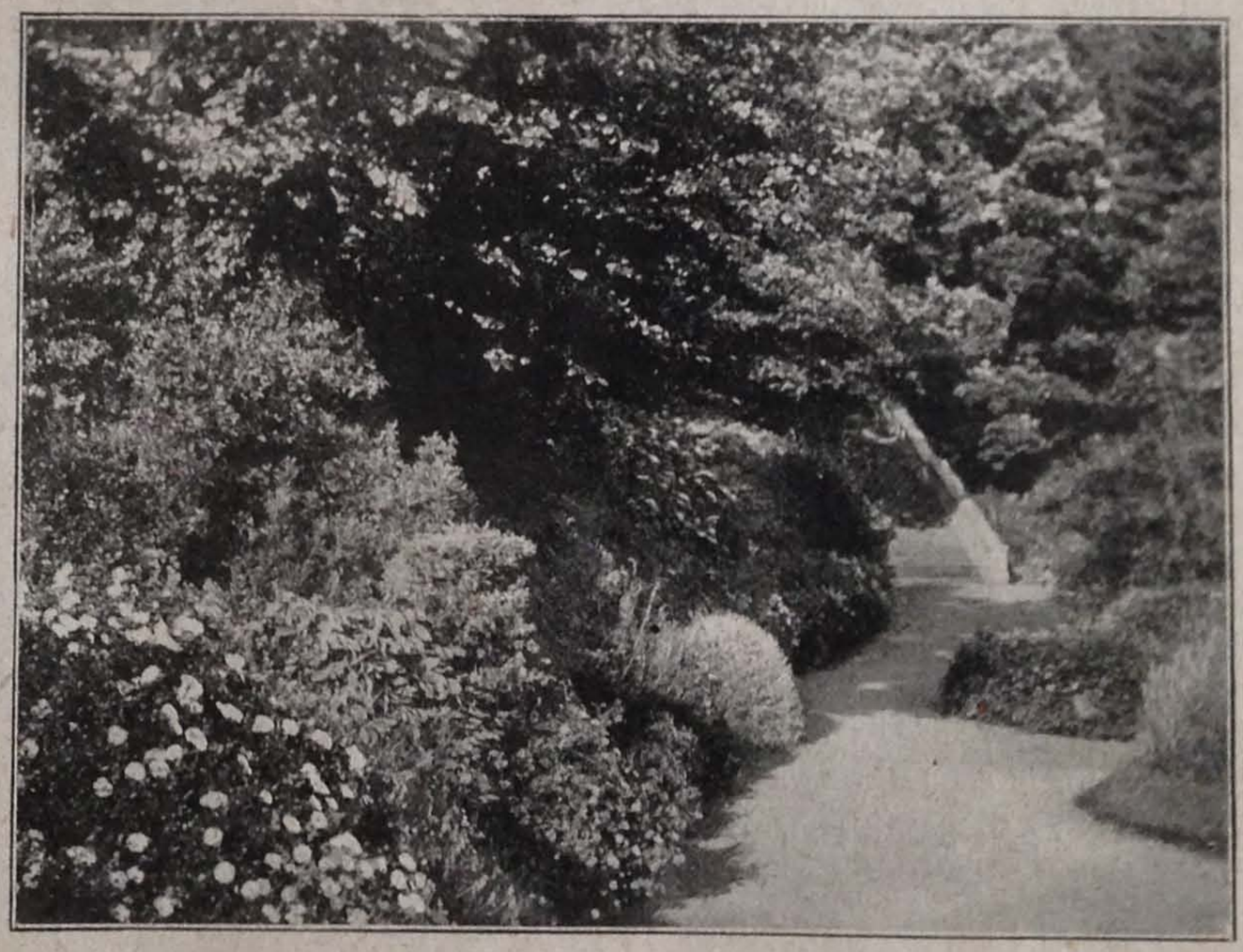
"Well, here, to begin with, is the Cypress avenue, which I believe is the finest in England?"

"What is the number of trees, and are they all of one variety?"

"There are about forty, and they are all of the variety Cupressus macrocarpa lutea."

"Their beauty is enhanced by the contrast in colour of the turf."

"You will see that the grass drives and paths are one of the characteristics of the place. Perhaps here the Water Lily pond and rock garden at the end of the Cypress avenue might be mentioned. The best of the Lilies are chromatella, gloriosa, fulgens, and Exquisite."



Steps and Grotto at St. James's, West Malvern.

Noticing a striking border of Liliums under the protection of a Yew hedge, the Rose temple next claimed attention. It is a low, columned, octagonal building, surrounded by a covered colonnade, with Rose beds all around it.

"We have only four varieties," said Mr. Pryde, "namely, Frau Karl Druschki, Mrs. John Laing, La France, and Papa Gontier, but we grow these varieties in hundreds. On the bank above are quantities of Dorothy Perkins.

The Gardener's House at St. James's, West Malvern.

But, though this is the Rose centre, there are Roses in many other parts of the garden. We frequently gather a couple of hundred flowers in a couple of hours."

**The Best Trees and Shrubs.**

Then we ascended to the principal grass walk, some fourteen feet wide, which, in addition to its own charm, commands the most delightful views.

"You will observe," said Mr. Pryde, "that the fence along this walk is almost hidden by flowering climbers, including Honeysuckle, Rambler Roses, Escallonias, Wistarias, Magnolias, St. John's Wort, and Jasminum, with Lavender along the borders. Each variety is planted in distinct masses, in order to show to the best possible advantage during its own flowering season."

"You must have an enormous number of Conifers and shrubs?"

"Along these and other paths there are, I believe, specimens of almost every tree and shrub in cultivation. I could not, of course, give the names of anything like all these, but among the best are the golden Cedar, golden Oak, the variegated Turkey Oak, the golden Elm, the Tulip-Tree, the Taxodium, silver and Hemlock Firs, the Tamarisk, Buddleias, bushes of Berberis, clumps of Garrya elliptica, clumps of Azaleas and Hydrangeas, Maples, and double Lilacs."

**The Heather Garden.**

Passing under the archway at the end of the top grass walk, from which runs the Blue Drive, so-called from the colour of its gravel, we came to the Heather garden. Here, too, is a summer house, with a little terrace round it, flights of steps, balustrades and stone landings, the Heather spread out below forming a lovely picture.

"I suppose you have in the Heather garden almost every variety of Erica?"

"There are a great many varieties, and the banks of Spanish Broom mingling with the Ericas add to their attractiveness. The Heather garden also embraces about half an acre of Lavender, and beyond it is the Bamboo wood, with the tennis courts in the distance."

**A Striking Border of Herbaceous Plants.**

Returning by another walk, I was struck by a fine bed of Gentians, and here, too, were noteworthy specimens of wild Seakale, growing from seven to eight feet high, a mass of white. In this walk is a striking border of herbaceous plants, which I remarked looked exceedingly well.

"They were only planted," rejoined Mr. Pryde, "a year ago, but they seem to be thriving. The principal subjects are Delphiniums, Asters, Scabious, Oriental Poppies, Potentillas and semi-double Hemerocallis. The Wild Parsnip is grown for the quantity of white flower it yields. It is important that the strong blooms should be taken before they go to seed."

"Then you have a number of herbaceous Pæonies?"

"Yes, they are a very special variety, and have always been a feature of these gardens. The mass of European Gorse, sprinkled with Roses, and the banks of Rosemary, are also very much appreciated. Now we come to 'Cherry-tree Lawn.'"

"The name, of course, being given because of the wild Cherry-trees," I rejoined, surveying a smooth slope with a levelled walk along the top, leading from the terrace steps, "but your banks of Japanese Tree Pæonies are a great attraction?"

"I am told that they form the finest collection in the country. There is one white variety which is absolutely unique. The Californian Tree Poppies behind the Japanese Pæonies are rather ornamental, and Bamboos flourish in this quarter."

**The Terrace Bedding.**

Proceeding towards the terrace garden, I observed just under the mansion high banks of bloom, consisting almost entirely of Roses—Gloire de Dijon and Wichurian varieties—quite in keeping with the massive stone walls.

"I see you have Roses in the beds on the terrace?"

"Yes, La France and Mrs. John Laing, two of the four varieties grown so largely near the Rose temple, but our system is to use chiefly herbaceous and Alpine plants, for the terrace beds. These include Dianthus, Cornus, white Phlox, Lithospermum, Heucheras, Campanulas, Potentillas and dwarf Asters. On the banks sloping down from the terrace are beds of Liliums, Erigerons, and crimson Rambler Roses tied down."

Then, pausing for a minute in the Lavender walk, and noting a picturesque little wild garden, with the black Hazel, Acers, and Japanese Maples conspicuous, we reached the kitchen garden, where a colony of glasshouses, all facing south, occupy a considerable area. They are admirably arranged, and an enormous quantity of Peaches and other fruit are grown. Starting with Peaches, I enquired about the early varieties.

"Here is a house," replied Mr. Pryde, "with fine crops of Stanwick Elruge and Hale's Early. The next is a later house, and contains Stirling Castle Peach, and Pineapple Nectarine, while another late house has Barrington Peaches on the back wall, and Tomatoes in front.

"What are the varieties of Tomatoes?"

"Hipper's No. 1, and Queen Alexandra. I got the former from Calderwood Castle, and now grow tons of it."

"It seems to be doing remarkably well."

"As a matter of fact, it does even better here than in Scotland. You will notice, as we go on, that the fruit houses are turned to account as much as possible. Thus, in another late house are Alexander and Noblesse Peaches, with Lord Napier Nectarine in front, and a batch of Tomatoes in pots. Also the Cape Gooseberry is grown in pots on the same principle as Tomatoes; we use it as a table fruit, and it does remarkably well in a Peach house. Now we come to another early Peach house, but in this case Cucumbers are planted in front, the varieties being Telegraph and Rochford's Market. We gathered Peaches of the Royal George variety early in April."

"I see you have Strawberries in front of the Peach houses."

"Yes, Royal Sovereign, the only variety that does well here, and on the north wall, facing the fruit houses, are Morella Cherries, with Lettuces grown underneath."

"I notice you have a large number of Chrysanthemums."

"We grow about two thousand on single stems and as bush plants, and I suppose there are two hundred varieties. The best whites are Nellie Lockett, Mrs. Judson, and Niveus; the best yellows include Cheltoni, Louisa Giles, and W. H. Lincoln; and the best orange, Godfrey's King, Mrs. McKinley, and Charles McInroy. A couple of houses are devoted to Palms, Crotons and other stove plants, with Bamboos in pots. Ferns are also grown, but, so far as the houses are concerned, fruit is the prevailing feature."

**Fine Crops of Peaches.**

"With which you include Tomatoes?" I said, as we entered a very fine Peach house.

The Water Lilies at St. James's, West Malvern.

"Tomatoes and Cucumbers. The Peaches in this house are Royal George, Stanwick Elruge, Princess of Wales, and Dr. Hogg."

"The fruit of Princess of Wales is remarkably fine. Can you tell me the weight?"

"Some of them are from fourteen to fifteen ounces each. Here, Tomatoes are grown on the side stage, and after these I bring in from seven to eight hundred Chrysanthemums."

"The next house seems to be devoted entirely to Tomatoes, grown on stakes."

"The stakes are a fine support, much better than twine. There are several varieties, including Dobbie's Champion, Sutton's Satisfaction, Best of All, Earliest of All, Benn's Select, and Laxton's Prolific. In the Melon houses next, I grow two or three varieties, but by far the best is No. 1. From these small houses I gathered last season a hundred and sixty Melons, two to four pounds in weight each, a nice size for table fruit."

**The Best Apples and Pears for Pots.**

"More Tomatoes!" I observed, as we entered a spacious house, with Figs on the back wall.

"They fill the centre at present, and will be followed by Chrysanthemums, the Chrysanthemums being in turn followed by bulbs. The Plums on the wall are chiefly The Czar and Victoria. In the adjoining house are Apples and Pears, grown in pots and on the walls."

"Which do you consider the best varieties for pot work?"

"The best Pears are Clapp's Favourite, Beurré Diel and Doyenné du Comice, and the best Apples, James Grieve and Charles Ross. On the side stages are Malmaison Carnations, of which I find the best are Mrs. Trelawney, Churchwarden, and Princess of Wales."

**The Madresfield Court Grape.**

"You have some good crops of Black Hamburgh Grapes."

"Yes, the bunches in this Vinery are about three pounds in weight. The other variety is Foster's Seedling. I cut out the old canes, and laid in young shoots. In the next Vinery to this—which contains an early crop of Cucumbers in pots, and a great quantity of Tomatoes (Ruby and Stirling Castle), chiefly pots, but some planted in the mould—Madresfield Court is the Grape grown."

"What is your opinion of Madresfield Court?"

"I regard it as the best Grape in cultivation. It certainly always fetches the highest price. I find no difficulty in growing the fine bunches which you see hanging on the Vines, either with respect to splitting or anything else."

"What do you grow in the Muscat house?"

"At present, Golden Queen. At the back of this house Asparagus plumosus is grown, and in pots, which are very useful. Melons, Cucumbers, and Tomatoes are also grown in other houses, a succession of Tomatoes being kept up right through the winter."

"You must consume a very large number."

"We grow Cucumbers and Tomatoes for sale, as well as for use, the surplus crops being sold privately."

"What are the late Grapes in your fine range of Vineries?"

"Mrs. Pince, Mrs. Pearson, Lady Downe's Seedling, Muscat of Alexandra, Black Alicante, and Appley Towers. Hamburgh, newly-planted at the back, are fruiting for the first time this year. Several varieties of Figs are grown in pots."

**Outside Fruit and Vegetables.**

"Do you go in for much outside fruit?"

"There is a wall devoted to Pears, chiefly Doyenné du Comice; and Apples, a few Plums, and a quantity of Black and Red Currants are grown. Besides the vegetables in the kitchen garden, we have Sweet Peas and Violets, grown entirely for cutting. For this purpose, I think Blanche Burpee (white), Firefly (red), and Lady Grisel Hamilton (mauve), the three best. Violets, grown in frames as well as out of doors, are in great request, and I have thousands of the single variety, Admiral Avellan (mauve). Some weeks I cut a hundred and fifty bunches. The other varieties grown are Princess of Wales and California."

"Is there anything special in vegetables?"

"The soil, which is very heavy and rather poor, produces fine crops of Onions, Ailsa Craig, Sutton's Acme, and Dobbie's Magnum Bonum; Lettuce, Alexandra, Cos, and Webb's Wonderful; and Celery, Sutton's A1, and Dobbie's International. The best midseason Pear is Strategem, and the best late one, Duke of Albany. Now I think you are acquainted with the leading features of these gardens."

"How long have you had charge of them, Mr. Pryde?"

"Four years. I was previously at Calderwood Castle, both as foreman and as chief, and before I went there I was at Luttrellstown Castle, Dublin, and Freeland, Perthshire. This is the first appointment I have held in England."

"Do you show at all?"

"I have shown Chrysanthemums at Birmingham, and taken three or four prizes. But, to tell the truth, there is not much time for showing here, the gardens demanding my almost exclusive attention." Alfred Wilcox.

# Letters from a Lady Gardener.

No. 271.—THE HERBACEOUS BORDER AND SOUTH AFRICAN PLANTS.

DEAR KATE,—This is the time to rearrange your herbaceous border. Every third or fourth year you should have most of the plants in it dug up in October, and carefully laid on their sides in a row, the bulbs being sorted before they are replanted. Then the border should be dug over and manured, giving it cow-manure if the soil be light, and stable manure for a heavy soil. Then you rearrange the plants, and get them all in again before frosts become sharp, and next season you will find them much stronger in growth. We find it necessary to do this to a fourth part of the garden each autumn, so that it all gets renewed in turn: otherwise the plants which are strongest (amongst which are the Michaelmas Daisies and the Helianthuses) crowd out the rest, and the whole border becomes a battle-ground between the plants, in which the weaker ones are sure to get the worst of it.

Schizostylis coccinea.

Even between the years in which we clear the borders entirely, they must be kept in order as far as possible, and the more slender and delicate plants should be looked after, with a view to help them against their enemies, by clearing around their roots, and giving them some rich top-dressing. But this we usually do in March, when it is not possible to trench the whole of the border, because of the many bulbs which are coming up, and these would be injured then. They are dormant, however, now, so that it is easy to rearrange them in October, and divide the larger clumps of the perennials before planting them again.

Roses, Carnations, Pæonies, blue Delphiniums, and many other charming flowers can be added to the border if it does not yet contain enough of them, with all sorts of hardy bulbs, such as the beautiful May Tulips, Daffodils, and Scillas, with Crocus bulbs, in white, purple, golden and striped colours, as an edging. Pinks can now be taken up (if they have grown into an untidy size), divided, and replanted rather deeply, when they will make fresh roots by the spring. Gaps left by the Dahlias (which will now be taken in for the winter) can be filled with groups of Wallflowers, white Foxgloves, Sweet Williams, and Canterbury Bells, from your store of biennials in the kitchen garden; all these can be pulled up after flowering, to make room for the Dahlias again, about the end of May. Myosotis (Forget-me-not) makes a pretty edging to such a border, and can be alternated with groups of Crocus bulbs, as it flowers a little later than they do. Myosotis Perfection is one of the best of these, and you can get it in pink or white, as well as in blue, if you like. Myosotis Victoria makes the neatest little tufts, covered with turquoise blossoms, and M. Royal Blue is in a deeper shade, very handsome and uncommon. M. dissitiflora is the earliest of all to flower in spring, and Royal Blue the latest, but everyone of them is charming, and few gardens have enough blue flowers in them. If you have no plants, you can easily buy them now, but they are sown in May or June for the next season's use, and, if you want a lot of them, it is easy to do this in the kitchen garden next year, choosing a rather moist spot, and sowing the seed very thinly.

**The Kaffir Lily.**

One of the best of the flowers now in the garden is the Kaffir Lily (Schizostylis coccinea), an irid from South Africa, nearly allied to the Gladioli. It is rich scarlet-crimson in tint, and it blooms here until severe frosts set in. Sometimes it can be gathered as late as Christmas. I fancy it is not quite hardy in cold districts, but it appears to brave the cold well here. The bulbs can be procured now, in clumps, just coming into bloom, and it is best to pot them up and keep them in the greenhouse, or a window, for the first winter, dividing the corms in March, and planting them then in the border. They are excellent for cutting at a time when flowers are rare in the garden. You should divide the clumps of corms, when they get too close together, in spring, and give them good, rich soil, six inches apart from each other.

The whole garden must now be looked after more than ever, to keep it tidy. Like the toilet of an elderly beauty, neglect which would be overlooked amid the promise of spring, or the mass of blossoms of summer, cannot now be allowed with impunity, and no untidiness must be tolerated. The Hollyhocks should be cut down as they cease to flower, the Dahlias taken into the cellar (after ticketing the roots with the name of each), when they can be covered with sand or light soil in a corner until the spring.

The Michaelmas Daisies will ripen their seed before you can look round, and flood the gar-

# FAMOUS GARDENS :: IN WAR TIME. ::

## HOW THEY ARE BEING MAINTAINED WITH REDUCED STAFFS.

### VIII.—Interview with Mr. R. R. Pulling, at Theobalds Park, Waltham Cross.

THEOBALDS PARK, the residence of Admiral of the Fleet Sir Hedworth Meux, is a district full of historical interest, and is given over mainly to the growing of choice fruit for the market. The main entrance has a history all its own, and many are the visitors who travel the long private thoroughfare leading from the high road, in order to see it. For it is the world-famous Temple Bar, which, having been taken down from its old position in the City of London some forty years ago, was carefully preserved, and re-erected on its present site. But the principal object of my visit on this occasion was not to inspect Temple Bar, but to have a brief chat with Mr. R. R. Pulling, who has been in charge of the gardens here for the last twenty years.

"You will find many things are not quite as you would like them," said Mr. Pulling, "for we are working under difficult conditions, and the staff is very much reduced."

"How many does it number in ordinary circumstances?"

"Well, it should be about the same as our men, and the youngest is over military age."

"Have you ever tried to get women?"

"Yes, but they are awkwardly placed here; for there are many factories within a short journey, where girls and women can earn three and four pounds per week, that they will not come for gardener's wages. Even if we got them from a distance they would not stay very long, for the high wages of the factories would attract them away."

"How many of your old hands been killed in action?"

"Two, up to now. Strange to say, they both had a difficulty in joining the Army at first, for one was rejected no fewer than seven times, and the other three times. They both worked always in the houses."

### TWENTY HOUSES—ONE MAN.

"I see you have a good deal of glass here. How many houses are there altogether?"

"All told there are twenty, and I now do all the work in them myself, for I cannot spare any of the others to help me."

"It must involve a great deal of labour on your part to attend to so much," I remarked.

"There is, you may be sure, little time to spare. I had done no Sunday work for twenty-five years, and twelve months ago (since then I have worked Sundays as well) I never began to see things running wild or to waste. Perhaps we had better start with the houses," continued Mr. Pulling, "as they are a feature with us, especially indoor fruit."

The first house we visited was the late Vinery, where Alicante was showing well, many handsome bunches being carried. These had been thinned by Mr. Pulling himself, and he had done them all.

In the adjoining Vinery, which is also filled with Alicante and Mrs. Pince, Gros Colmar and Madresfield Court are Madresfield Court and Vinery are Madresfield Court and Mr. Pulling informed me that he had the thinning of these also.

"Melton Constable is a good Vine," said my guide, "but it requires heat to finish. It is, however, a splendid Grape, and it is in its favour that it carries well, and does not spoil in packing."

So far as looks went, it was certainly very satisfactory, and so were others of the same variety in the next house, where also Alicante is grown.

Passing through the houses in turn, we now came to a Peach house, the sole variety grown here being Early Grosse Mignonne. Still there was no sign of neglect or of lack of attention, for the trees were in excellent bearing condition, and carrying large numbers of fruits.

"How many fruits do you think you will have got from each of these trees?" I inquired.

"Well over two hundred," was the answer.

"And you have the same variety in this house," I remarked, as we entered the next.

"Yes," was the answer, "with Royal George here being Early Grosse Mignonne. Still there was no sign of neglect or of lack of attention, for the trees were in excellent bearing condition, and carrying large numbers of fruits.

"How many fruits do you think you will have got from each of these trees?" I inquired.

"Well over two hundred," was the answer.

"And you have the same variety in this house," I remarked, as we entered the next.

"Yes," was the answer, "with Royal George house. All the best varieties are grown, but Baroness de Brienen and Enchantress Supreme are favourites for table decoration, and so is Carola, which I think is still the best crimson."

"You have a nice, healthy batch of young Poinsettias coming on," I remarked, as we passed through another house.

"They will come in very useful in winter," said my guide, "and more so as many bulbs will be unprocurable. Poinsettias give a touch of bright colour at the dullest season."

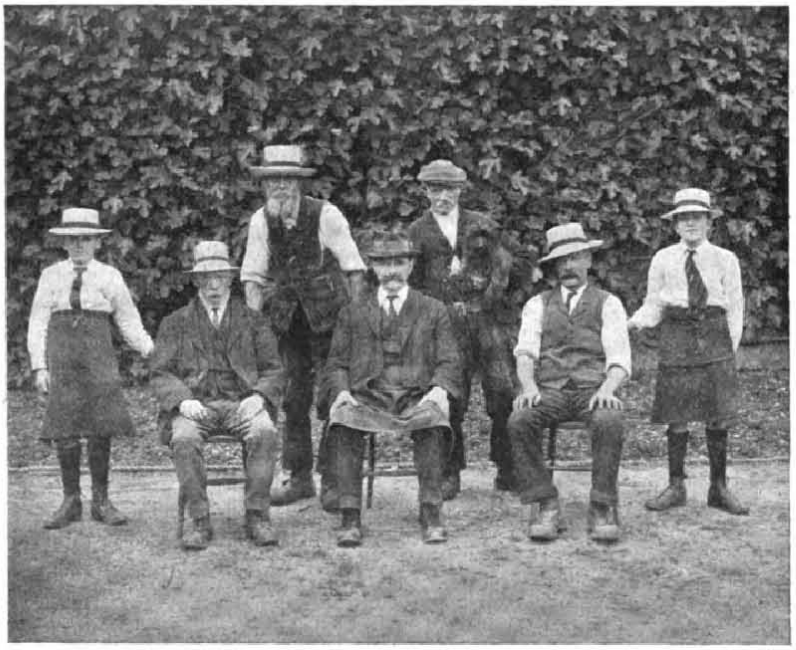
"And these Celosias are equally bright just now," I said, as we paused before a few well-grown plants approaching their best.

"They are a few plants we have grown for cutting and for the conservatory," said Mr. Pulling. "And here is a lot of Amaryllis, which have been very fine, but, of course, are now over. They were seedlings that I raised myself."

### A GOOD CUCUMBER.

"I see you have Cucumbers on the other side," I remarked, as I caught sight of several plants bearing fine fruits. "What variety is it?"

"That is Royal Osborne," was the answer.



MR. R. R. PULLING AND HIS STAFF, INCLUDING HIS TWIN SONS.

"Up to two years ago we always grew Rochford Market, but now we prefer the other, as it is far more prolific. The fruit, too, is smoother and of better quality."

One other house that we visited calls for special mention, not so much for its present contents—though these were not without interest—as for what it would have been under happier conditions.

"This," Mr. Pulling remarked, "used to be the orchard house, and we had it converted into a Cattleya house. But just when it was completed war broke out, so we gave up the idea for the time. As it is, the only Orchids we have are a few Cattleyas, and these have not had the attention they wanted."

And now, having finished the houses, we gave a few minutes to an inspection of the frames, which are very numerous. Here, again, vegetables predominate—indeed, the only flowering plants were a batch of cuttings of Perpetual-flowering Carnations, and one frame filled with Comet and Victoria Asters.

"The Asters ought to have been planted out some time ago," explained Mr. Pulling. "We want them to give flowers for cutting. As you see, they are overcrowded and getting drawn;

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but they cannot be planted out yet, as the ground is too dry. Here we are at the end of June, still waiting for rain, and have had none for weeks. We cannot spare labour for watering, so the plants must remain. My two boys (twins) will get them out when rain comes. They assist in many ways in the gardens; among other things, they helped me to pot up these Chrysanthemums."

And now we turned our attention to the walled-in kitchen garden.

One of the first things that I noticed was many good rows of Onions, very healthy-looking, and with never a blank to be seen; while close by were attractive plantings of Celery.

"This is a bed of James' Keeping," said Mr. Pulling; "and the Celery in the trenches is the pink Standard Bearer. It is the only one we grow now. I find it more satisfactory, and it stands 'knocking about' and rough treatment better than the white."

### CHECKING "BIG-BUD."

"You have a very nice-looking plantation of Black Currants," I remarked, as we sauntered along.

"That was only made last autumn," was the response. "I make up a new plantation, in fresh ground, every five years. I find it checks big bug to change about."

"And the Plums on the wall at the back?"

"They are Jefferson and Rivers' Early Prolific. As you can see, they are going to give wonderfully good crops this year."

"And so is the Peach on the wall. I see you have managed to get it thinned and tied in."

"That is Amsden's June, a first-class variety for outdoor work."

A little farther round, and I notice Potatoes are planted beneath Damsons. The Potatoes have a sturdy growth, while the Damsons are literally loaded with fruit—they always carry good crops, I was told.

In a corner of this garden a broad patch of Potatoes, remarkably strong in growth, clean, even, and promising well, also came in for notice.

### FAVOURITE POTATOES.

"This patch is Arran Chief, and it follows on Brussels Sprouts. For sixteen years before that the ground had had Raspberries, Baumforth's Seedling; but we cleared them out and discarded them when Superlative (which we tried on another plot) came into bearing. Then we well manured the ground before planting the Sprouts."

"Is Arran Chief your only maincrop?"

"We are also growing Dalhousie here, and have an acre of the same variety in another garden."

"You have already started to lift your earlies, I notice. What do you find the best varieties?"

"May Queen and Early Puritan are the two we grow. May Queen is certainly the best for quality, but Early Puritan is a heavier cropper."

"From the appearance of the crops generally, your ground should be in good condition," I remarked.

"It is at least in fair condition," replied Mr. Pulling. "We used to bastard-trench a quarter of it every year, but of course we have not been able to do so since the war."

"And have you any difficulty in getting manure?"

"It is not so plentiful as it used to be. At one time there was a stud of racehorses kept on the estate, which is five thousand acres in extent, and one Derby winner, Volodyovski, was bred here. We could then get plenty of manure. Admiral Sir Hedworth Meux has a racing stud, and I believe that it is coming back to Theobalds."

### GOOD PEAS.

"These are excellent rows of Peas you have here," I observed, as we moved on to another part of the gardens; "and I see the birds appreciate them, too."

"The birds that give us most trouble are hawfinches; they cannot be trapped, and have to be watched for and shot. There are plenty of woods round here, and they find shelter there, but they are so wary that it is difficult to get at them. A pair of them will clear a row of Peas in no time."

"What Peas do you grow?"

"For maincrops I prefer Duke of Albany, for it is an excellent cropper, giving well-filled pods of fine quality. For latest crops Autocrat wants a lot of beating. It is of hardy constitution, and bears late. We are also trying a few rows of Autumn Giant."

"What is the length of the rows here?"

"In this garden they are thirty-five yards long, and each row takes a quart of Peas to sow it. In the garden we went into first the rows are only twenty-five yards long."

"You grow considerable quantities of Red Currants?" I suggested, as I observed the whole of the north side of this garden planted with them.

"Yes," was the answer, "and we get splendid crops. As soon as they are over I shall take off the netting to cover the Morello Cherries on the wall. These always bear well."

Walking round, we passed in turn a thriving bed of Carrots New Red Intermediate, and the plot of Potato May Queen to which Mr. Pulling had already referred, and which I was able to agree with him was all that could be wished.

On the walls on the south side are a number of Peaches, planted five years ago, and all in good bearing. The varieties are Barrington, Marquis of Downshire, Waterloo, and Dymond.

Then, after noticing the Cherry cage, where there are also some choice dessert Gooseberries; a plantation of Jerusalem Artichokes, and near by another of Globe Artichokes, which had stood throughout last winter without any covering; and a breadth of young Violets, which later on will be lifted and put in frames, to provide winter blooms; we turned into one of the flower gardens.

### HERBACEOUS BORDERS WANT ATTENTION.

So far, in the course of our journey round, the lack of labour had not made its effect very apparent; but as soon as we left the vegetable and fruit quarters behind us matters took on a different complexion.

"Sir Hedworth and Lady Meux are anxious only about food production now, and do not want any labour spent here that can be usefully employed in the kitchen garden," said Mr. Pulling. "Eight years ago this garden was planted and the herbaceous borders made. It had previously been the old kitchen garden."

"When at its best it must be very beautiful," I said; "for the plants seem to be good, and the colours blend well. But certainly a lot of time will have to be spent to get it presentable."

"The borders are, of course, badly overcrowded," said Mr. Pulling, "and the plants want to be taken up and replanted."

Running parallel with this garden is a second and wider one, with a background of Rambler Roses on each side, and choice Pæonies, Roses, and flowering shrubs, together with dwarf perennials. Some of these were in flower, others to come, and others past their best; but all bore evidence that food production has taken first place, and that this garden has to go for want of attention. The grass here is overgrown and encroaching all over the beds, and the paths are becoming weedy.

"It will be easy to get rid of the weeds on the path by the aid of weed-killer," said my guide; "but nothing can be done with the grass."

Leaving this garden we next approached the house, passing en route a hedge of Philadelphus which has been planted to conceal a long, low wall, and hitherto had been cut level with its top. But the hedge could not be cut, and has grown well above the wall, and on the day when I saw it it was a mass of flowers—a truly glorious sight, and filling the air with fragrance.

"You have a considerable stretch of lawns to keep cut in normal times," I remarked.

"It used to take two men two days with a horse mower, and two and a half days by hand," said Mr. Pulling; "but beyond the tennis lawn and the patch of grass in front of the house, no mowing has been done."

Turning off from the terrace we passed into the Rose garden, where also are beds that, my guide informed me, used to be filled with Geraniums, Calceolarias, and dot plants. Here, too, the grass had been allowed to go for hay, which one of the men was then raking.

"The quickest job I have ever done," said Mr. Pulling, "was the planting of these beds. Instead of formal plants they now have Potatoes. The soil is not good enough for Beet and Carrots, nor will it grow the ornamental Kales."

"There are many blanks among the Roses," I suggested.

"We lost a good many, especially standards, as a result of the weather last winter, but we shall not attempt to replace them until after the war."

Passing on, we crossed the lawns to the west of the house, making our way towards The Dell, a charming spot, partly surrounded by fine Oaks and other trees, with Azaleas and flowering shrubs beneath, and Rambler Roses as a screen on the far side.

### A THOUSAND RAMBLERS.

"There are a thousand Ramblers planted here," said Mr. Pulling; "and this is a lovely little spot when it is properly attended to, but the Roses have got out of hand, and the grass has just been mown for hay."

"Do you anticipate any difficulty in getting the lawns back to their old state?" I inquired.

"No," was the answer; "they will take no harm. We shall just let them go, and when we can get to them shall use the scythe a time or two, then mow every week, whether it appears to be wanted or not. That is the secret of getting a good lawn. The grass may not seem long enough to cut, but it should be done."

From The Dell we passed on to the Long Walk, a delightful promenade thickly planted with flowering shrubs and Roses.

"We formerly kept two men to see to the plants here and to keep the grass cut," remarked Mr. Pulling; "but you can see by the overgrown condition of things, and the weeds on the path, that nothing has been done lately. All the choicest shrubs are to be found here, and Roses are planted so that they intermingle with them, and in some cases climb over them. They are so chosen that they shall come into bloom in succession, in order that there will be a long flowering season, and always something fresh here. One or two plants I should like to point out to you. Here, for instance, is Choisya ternata, which used to be grown in pots in the greenhouse. Now it is planted out, and it stood last winter without protection. Our collection of Philadelphus is especially good, too."

Retracing our steps, we next visited the orchard, where the Apples and Pears were giving promise of excellent crops. In answer to my question, Mr. Pulling said:

"I regard Langley Pippin as the finest early Apple. It is very prolific, and fruits every year, coming in just after Gladstone. The birds are good judges of quality, and we have to net it. The best Pear, in my opinion, is Pitmaston Duchess."

With this I brought my visit to a conclusion, agreeing with Mr. Pulling's remark as we parted, that to win the war food production must come first; and that it will not be a difficult matter to get things right later on. But before leaving I asked him to give me a brief outline of his gardening career, and from this I learned that before coming to Theobalds Park twenty years ago he had been for nearly three years at Croxteth. Previous to this he was at Powis Castle, Welshpool; three years at Lyme Park, Cheshire; one year at Hopwood Hall, Lancashire; three and a half years at Petworth Park, Sussex; and also at Chelsea with the late firm of Veitch's.

W. J. CHITTENDEN.

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Next week: Interview with Mr. G. Carpenter, at West Hall Gardens, Byfleet.

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**SUNDAY LABOUR ON ALLOTMENTS.**—The Glasgow Parks Committee, at a meeting on March 7, unanimously agreed to advise the Corporation to withdraw the regulation prohibiting Sunday labour on allotments. Maxwelltown Parks Committee has also had the same question under consideration, and has agreed to the suspension during the war of the prohibition of Sunday labour on the allotments under its management.

**BOSTON FLOWER SHOW.**—The Massachusetts Horticultural Society proposes to hold a flower show in the first two weeks of June, on the lines of the R.H.S. Chelsea exhibitions. The site selected for the show is in front of the Wentworth Institute in Huntingdon Avenue, and the principal exhibits will be staged in tents. Professor SARGENT, of the Arnold Arboretum, will exhibit Azaleas. An important exhibit from this country will be Messrs. WATERER, SON AND CRISP'S group of Rhododendrons. A guarantee fund of about $10,000 has been formed.

**ALLOTMENT GARDENS IN FRANCE.**—We learn from our contemporary *Le Jardin* that the movement towards the cultivation of waste land and the formation of cottage gardens is proceeding apace in France, and already assumes important proportions. The War Minister has placed at the disposal of the Minister for Agriculture more than seventy professional horticulturists, many of them old pupils of Versailles, who are lecturing and directing operations in the gardens near the front. Monsieur LUCIEN CHAURÉ, who is now over military age, has left the Army, and undertaken the work of co-ordinating the activities in each commune, forming for each district a separate committee, which will in its turn superintend the work of allotment-holders and assign the required plots. In Paris the well known "workmen's gardens" society, founded by the Abbé LEMIRE, has undertaken to cultivate the ground around the fortifications, of which there is much still uncultivated, and for which volunteers are being invited to apply. Monsieur M. DUCROCQ, the director of allotment gardens to the Minister of Agriculture, is devoting much energy to the task of bringing into cultivation all the waste land in the suburbs of Paris. All over the country the allotment gardens are increasing in number, and men (civilians over military age, and soldiers on leave), women and children are all taking up the work with enthusiasm. The work of children of school age is being organised very thoroughly, and an appeal to all school authorities has been sent out from the Ministry of Agriculture with a view to utilising the help of the scholars in the best way. The Minister of Public Instruction has arranged for the closing of the primary, secondary, and normal schools for a period of from 15 to 20 days at Easter, beginning with the last week in March, to allow the school children of France to help with the spring farmwork, especially the planting of Potatos. It is expected that by this means four million young workers will be set free. There will also be 29,000 boys and 25,000 girls from 15 to 18 available from the secondary schools, and 50,000 boys and 30,000 girls from the lycées and colleges to speed up the harvest.

**GARDENER CENTENARIAN.**—We have pleasure in reproducing the portrait of Mr. T. PYPER, 52, Red Lion Lane, Hammersmith, who celebrated his 100th birthday on February 5 last. He was born in Ross-shire, and whilst still a child was taken to Edinburgh, where his father was engaged in laying out the gardens in Princes Street. Later on he was apprenticed to Mr. MCNAB, who was superintending this work. His first appointment in England was at Lord VERNON'S at Sudbury Hall, Derby. About 1840 he went to Chatsworth, and was employed for a time under Sir JOSEPH PAXTON, the Duke of that day showing marked appreciation of his work. Leaving Chatsworth, he went to Lord LECONFIELD'S, at Petworth, and to Mrs. RAE'S, in Gloucestershire. MRS. RAE appears to have been one of the first to take up Orchid growing, and under her instruction Mr. PYPER became a skilful grower. This experience with Orchids led to an engagement with Lord DIGBY at Minterne, which lasted for twenty years. On leaving Minterne, Mr. PYPER went to Melton Constable, where he remained for ten years, only leaving on the death of Lord HASTINGS, and with the approval of the executors of the estate. After a short interval, he was appointed gardener to Colonel PINNEY and his sister, Lady SMITH, at Somerton Erleigh, in Somersetshire. Here he remained for over twenty years, this engagement practically ending his active career at the age of 78. Very shortly after this, having been a regular subscriber to the Gardeners' Royal Benevolent Institution for many years, and having been unfortunate enough to lose what little money he had saved, he was elected to the benefits of the Institution. Mr. PYPER enjoys good health, but it is only just possible for him to sign his name owing to impaired eyesight.

**WAR ITEMS.**—Captain PHILIPPE RIVOIRE, secretary of the French Chrysanthemum Society, after doing military duty as a reserve officer

MR. T. PYPER, WHO RECENTLY CELEBRATED HIS 100TH BIRTHDAY.

since the beginning of the war, has been released from service, and is back in Lyons. He hopes in the near future to revive the publication of the society's official journal, *Le Chrysanthème*. The nursery of Messrs. RIVOIRE PÈRE ET FILS has been closed since the beginning of the war, but their seed business is being carried on. Similar information reaches us in regard to M. LÉONARD LILLE'S nursery.

—— We learn with regret that Mr. WILLIAM EDWARD DOE, son of Mr. DOE, gardener at Parkwood, Henley-on-Thames, has been killed in Mesopotamia. The deceased soldier was a member of the garden staff at Rangemore. Mr. DOE, senr., has three sons in the Forces; the eldest, Sergt. E. DOE, is at Salonica, wounded.

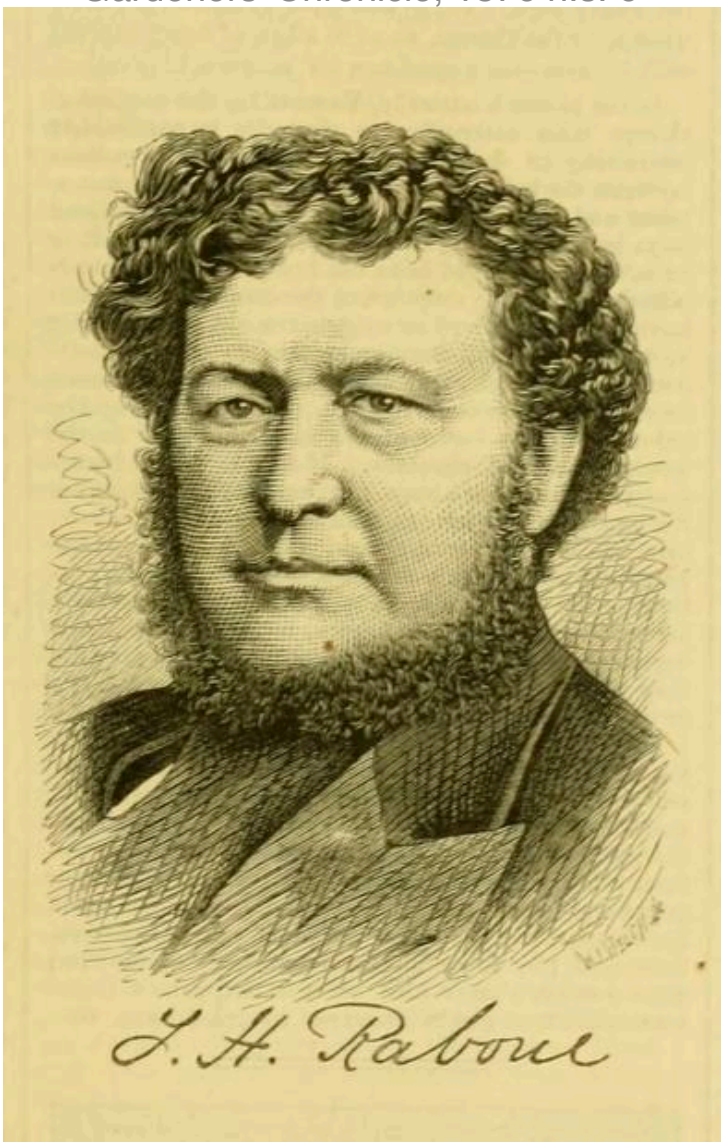
**PUBLICATIONS RECEIVED.**—***Lawn Tennis Almanac,*** 1917. (London: F. H. Ayres, Ltd., 111, Aldersgate Street.) Price 1s. 6d.—***Rational Fruit Culture.*** By H. C. Davidson. (London: *Garden Life* Press, Hatton House, Great Queen Street.) Price 2s. 6d.—***The Commercial Absorption of Ex-Naval and Military Men.*** By Lionel Yexley. (London: The Fleet, Ltd., 11, Henrietta Street, Covent Garden.) Price 2d.—***Plantae Wilsonianae.*** Vol. III., Part III. By C. S. Sargent. (Cambridge: The University Press.)—***Herb Collecting for Boys and Girls.*** By Mrs. T. Chamberlain and Miss E. C. Wheelwright. (London: National Herb-Growing Association, 44, Queen Anne's Chambers, S.W. 1.) Price 3d. Second edition.

## HOME CORRESPONDENCE.

**POTATO DIFFICULTIES.**—Of the recent Potato regulations, one rule is still in force which will do great mischief if not relaxed. I refer to the regulation that all seed Potatos unsold by April 1 will have to be sold as for eating, or at the price fixed for eating. Owing to the abnormal season and scarcity of labour, a large quantity of land intended for Potatos is still untilled, and probably a large proportion will not be ready for planting until May is well advanced. Are all the small growers who have not much storage room to be deprived of the chance of obtaining seed tubers unless they are ready to plant by April 1? The seedsmen are approaching the authorities through their Association to obtain a relaxation of this regulation, as the matter affects almost all gardeners and next season's food supply. *Charles E. Pearson, Secretary to the Horticultural Trades' Association.* [Since this letter was written the Ministry of Food Control has announced that it is prepared to grant licenses to seedsmen to sell hand-picked seed Potatos of any variety up to 56 lbs. of one kind, at the prices advertised in catalogues that were already in circulation, the sale under these conditions being permitted up to May 31. Licenses to be applied for by individual firms, accompanied by a copy of their catalogues, to the Secretary, Ministry of Food Control, Grosvenor House, Park Lane, London.—EDS.]

**THE FROST AND THE GARDEN.**—Sir Herbert Maxwell is to be congratulated not only on his delightful pictures of his Galloway garden, but on the charmed life of the plants he tends and knows so well. Here in the South of England the frost has played havoc, and has destroyed or crippled not only rare, but many of the common things. The tree Lupins look woebegone dry sticks. The leaves of Portugal Laurels are particoloured, the distal halves dead and brown, the stalk-ends green. Olearia macrodonta has cast off most of its leaves. Wallflowers are crippled and Stocks look as though they had been trampled on. Lithospermums are burned as with fire, and Helianthemums seems to have disappeared. This is not a complaint, but an attestation, and no doubt things are by no means as bad as they seem. For instance, although autumn-sown Cabbage has gone the way of the Stocks, Peas sown in the autumn, which were showing through the ground when the frost and cold winds came, have survived the ordeal, and are beginning to grow vigorously. No one can be very distressed when the Crocuses have come, when the Larch-like tips of the Gooseberries show their green, when the exquisite first young leaf of the Strawberries appear, and the fruit-buds of the Pears begin to show like mosaics of mother-of-pearl. Of the more tender things which have suffered I will not speak, lest I should disprove my contention that I am only recording, and not lamenting. *A. N.*

**R.H.S. AND THE PURCHASE OF BOOKS.**—Those who read the account of the annual meeting of the Royal Horticultural Society in your pages last month may remember that I urged that the time had come for the committees to have some real power. The following incident, which has taken place since the meeting above mentioned, is typical of the conduct of the Council, and I think abundantly justifies my suggestion:—Acting on what was said by the powers that be on that occasion, I reported a rare French work by Boyceau to the chairman of the Library Committee as a suitable purchase. The book was sent by the dealer on approval, and it was refused. But by whom? By the Library Committee, which presumably exists for the purpose of advising about book buying, and whose members are believed by the public to be experts? No. No meeting of this body was called. The Council evidently did not think it was worth while to summon it, although in the case of an expensive work—and a very rare one—outsiders would naturally think they would have done so. No; they sat on it themselves. I ask, Where does the Library Committee come in? and Why have a committee at all if this is how it is to be treated? Some members of the R.H.S. think the Council's ways want mending. Verbum sat sapienti. *Joseph Jacob, Whitwell, Salop.*




Thomas Rathbone, head gardener at Alton Towers

Gardener's house at Alton Towers

Mr. Thomas Rabone, who is now gardener at Alton Towers, was born in the village of Wellesbourne, near Warwick, on April 16, 1833. "My father," he writes, "died when I was only six years of age, and my mother was left with three children to fight the battle of life. I was very fond of wild flowers, and had a little garden in which I spent many hours, planting such things as Cowslips, Primroses, &c, my mother often giving me a word of encouragement. At eleven years of age I set out to work, and at fourteen was selected for employment in the gardens of B. Granville, Esq, Wellesbourne Hall, by Mr. John Cotton, the excellent and faithful gardener, who, two summers ago, paid me a visit at Alton Towers, telling me that he could not rest until he had seen me once again. From this good old man I received many useful and practical lessons that have been of very great service to me, and such as every young boy needs who is destitute of a father's counsel.

"At the end of two years I was removed to a more important and much larger garden, that of Walton House, under Mr. Cobb, now agent to Sir Charles Mordaunt. Mr. Cobb was a strict master and a most excellent gardener, and from him I received the greatest kindness during the three years I was there, besides invaluable lessons in flower gardening, the growing of soft-wooded plants, general kitchen gardening, and the forcing of Strawberries, Grapes, Melons, &r. I had to walk two miles every day from my home to Walton; and for five weeks, at the time the new flower gardens were made, I have run a barrow filled to the brim, and sometimes more than that, with heavy soil over a deep sunk fence, and that for the sum of 8s. per week. Belter days now for young men!

The next garden of importance I entered— that also through the kindness of Mr. Cobb— was that at Packington Hall, near Coventry. Mr. Poole was gardener, and a very good one indeed. Grapes, Pines, Peaches, Melons, and Cucumbers were grown very successfully. I spent four years here, three as foreman, and during some hard winters I have had eleven fires to see to myself; many a night I have not had three hours' sleep, as the houses were difficult to heat. During my stay at Packington I gave my mind to the improvement of my general education, as I was determined to make my way if possible Mr. Cobb again took me by the hand, and Mr. Poole very I reluctantly let me go to Shrubland Park, under Mr. Davidson. I was here foreman of the forcing department and kitchen garden, being placed in that position from the stoves by Mr. Foggo, Mr. Davidson's successor. During the short time I was at Shrubland I learnt the names of many plants and other things that have been of great benefit to me, and prepared me for the next garden I was to enter — that at Trentham Hall. Mr. Fleming started me in the forcing department at once, and success attended this undertaking, for Mr. Fleming took many prizes at the London shows during the year I was at Trentham; and through his kindness I was sent out as head-gardener to Barlaston Hall, the seat of R. T. Adderley, Esq., 2 miles from Trentham, so that I still had opportunities of seeing the gardening of Trentham during Mr. Fleming's lime, and that of Mr. Henderson's, and also of forming the acquaintance of Mr. Stevens, the present intelligent gardener, whose friendship I have retained ever since. Keele Hall was, as now, another noted garden in the neighbourhood, and I paid many visits there, and formed the acquaintance of Mr. Hill. There I saw the development of those wonderful Hamburghs and Black Princes, which carried so many first prizes at the London shows, and which made the name of William Hill a household word in every gardeners' cottage throughout the land. With such surroundings as these I was fired with zeal to reach success, and I set about renovating the old carrion borders at Barlaston, building Peach-houses, and getting more glass for plants, &c. Everything seemed to prosper with me, for during my stay there, of over six years, I won many prizes for Grapes, Peaches, plants, &c, at the local shows, as well as those at distant towns, such as Birmingham, Leamington, and Chester, and at the Royal Botanic Society in London for Peaches and Nectarines.

My next situation was Hart's Hill, the seat of C. M. Campbell, Esq., who was very fond of gardening. The first year I was there I took 1st prize for four dishes of Peaches at the

Royal Horticultural Gardens, in London. Mr. Campbell subsequently bought Woodseat estate, and there I had to face some rough work, for we shifted all the glass from Hart's Hill, and the Peach trees also, and planted new Vines, &c. Here, also, my labours were crowned with success, for I took the gold medal and large silver-gilt medal for collections of fruit at the Royal Botanic Gardens, London, as well as many 1st prizes for Grapes at Liverpool; but my greatest success was in the year I left Woodseat, when at the great show of the Royal Horticultural Society at Leicester, I took 1st prize for every dish of fruit I exhibited, namely, for a dish of Hamburghs, and for three dishes of Grapes— extra prizes given by Lady Howe; and of the Society's prizes 1st for Hamburgh Grapes, for Queen Pine, and for green-fleshed Melon.

The situation at Alton Towers being vacant, I spoke to my employer, Mr. Campbell, to help me to obtain it; for, though I regretted leaving so worthy a master, yet at the same time I was anxious to better my circumstances. Through his kindness and that of other friends I was appointed to Alton Towers, and since I have been here the good taste of my worthy employers, and especially of Lady Shrewsbury, has led to many improvements being made; more glass has been added, and last, but not least, a good and comfortable head-gardener's house has been built, and better accommodation afforded for the young gardeners. Through the confidence reposed in me by my noble employers, I have now, under the able agent, Mr. Boham, the charge of the extensive woods and estates, as well as the entire general management of the place. For four years or more out of the seven I have been here, few men have toiled harder, or have met with better success. I am greatly indebted to many of my gardening friends for counsel, encouragement, and advice — especially to Messrs. Phipps, of Ingestre; Stevens, of Trentham; Hill, of Keele Hall; Henderson, late of Trentham; Judd, late of Hawkstone; Miller, of Combe Abbey; Brown, of Elmdon Hall; Jones, of Wynyard Park, and others.

May I, in conclusion, add a word of advice to my younger brethren in the craft? Mine has been a hard and uphill fight, but with a worthy purpose, with patient energy for its accomplishment, and resoluteness that has been undaunted by difficulties. I say to all young gardeners: Set the object of your life before you, and work at it with sweat of brow and stretch of brain, and you will not toil in vain. Be kind and obliging to all you have to do with. Above all make the Bible the guide of your lives, and it may be that when you are dead and gone your memory will be recalled with gratitude and tears."

well-bloomed specimen of Plumbago capensis, which was placed before a tolerably good Anthurium and a Stephanotis floribunda.

Begonias were not very numerous, but the quality of several of the exhibits was quite satisfactory. The best four plants of these were staged by Mr. F. W. Price, gr. to H. C. CROWTHER, Esq., Broadelyot. Fuchsias, Coleus, Carnations, Dahlias, Petunias, and Roses were exhibited in small quantity, the quality generally fair, but calling for no special remark. There were several exhibits of very commendable Ferns, and the best four plants were staged by Mr. H. Cooper, gr. to C. M. HARRISON, Esq., Whitmores; and in another class Mr. R. Simmons, gr. to F. H. SIMPSON, Esq., Thornbury, had three fine plants of Adiantum cuneatum.

*Fruit.*—Though not very extensive, the fruit exhibits represented Grapes, Peaches, Nectarines, Melons, Gooseberries, and Currants. Mr. J. MUNRO was 1st for black and for white Grapes, and his bunches were of good quality, but neither the black Grapes nor his Muscats of Alexandria were quite ripe. The other dishes of fruits were generally of very satisfactory quality, particularly Red Currants, and some of the exhibits of Gooseberries.

*Vegetables* were exhibited with considerable spirit in the open classes in those limited to single-handed gardeners, and in others confined to amateurs. First prizes for collections were taken by Mr. MUNRO and Mr. F. W. PRICE, and Mr. WEBSTER was 1st for a nice collection of salad. Potatos were not of more than average quality in the most cases, and the skins were not very clean, but Beans, Peas, and Turnips were good.

*Table Decorations, &c.*—One of the tents was nearly devoted to these and kindred exhibits, which were more than usually numerous. The winning designs exhibited considerable taste, but call for no special notice. Bouquets and similar florists' specialties were numerous; and to instance the desire that exists here to provide classes of interest to as many exhibitors as possible, there were mail-carts decorated with flowers, &c., the work of children only; and model designs of gardens and greenhouses were numerous. Some of these were good, but such classes usually bring exhibits of a very artificial and absurd character. Amongst some furnished window boxes there was one shown by Mr. F. SINNOCK, of very superior appearance. Nothing very novel was employed, but it was done well in detail.

*Cottagers, and Miscellaneous.*—There were twenty classes open only to cottagers, most of them for vegetables. Miscellaneous exhibits included groups of plants and hardy cut flowers from Messrs. JNO. LAING & SONS, Forest Hill; Crotons and other plants from Messrs. J. PEED & SONS, Norwood; and excellent group of choice Begonias from Mr. JNO. R. BOX, Croydon; and smaller exhibits from local nurserymen.

## NEWCASTLE-ON-TYNE HORTICULTURAL.

JULY 24, 25, 26.—The annual show of this old-established society opened on Wednesday last. Taken throughout it fully maintained its previously high standard of excellence. Amongst plants the groups are beginning to form an important feature. The cut-flower classes were notable for the grand display of Roses, and also for the splendid exhibit of hardy herbaceous flowers, whilst Carnations and Pansies were remarkable for good quality. The decorative arrangements, as on previous occasions, were quite up to the average, making collectively a splendid display. Fruit, on the whole, was not as good as last year. It is pleasing to note that vegetables have been included this year, and it is hoped that this portion of the show will be further extended another year.

### PLANTS.

The specimen classes for flowering plants were not so well filled, a fact to be regretted; for whatever may be said of the value of specimens in any other respects, it will be conceded that they well exhibit the gardener's cultural skill.

Mr. Nicholas, gr. to the Marquis of ZETLAND at Upleatham, was an excellent 1st for six different and distinct kinds, showing Dipladenia boliviensis, well flowered, and very healthy; Allamanda grandiflora, a good all-round plant; Phœnocoma prolifera Barnesi, also good; Erica ventricosa Bothwelliana, rather thin, but fresh; Clerodendron fallax, a grand specimen, with thirty flower-spikes (this fine autumnal species is worthy of more notice), and a well-bloomed Stephanotis floribunda. The next exhibit fell far behind this one.

Mr. NICHOLAS was also first for six exotic Ferns, showing two grand Davallias, D. fijiensis plumosa fully 6 feet through, and very fresh; and D. tenuifolia Veitchiana, a graceful variety grandly developed; and other good plants were Sadleria Cyathoides, and Dicksonia squarrosa.

Mr. McIntyre, gr. to Mrs. PEASE, Darlington, was an excellent first for six foliage plants, having well-coloured Crotons in C. Queen Victoria and C. angustifolius (the latter in its best form); also Phœnix rupicola and Cycas siamensis, and a dwarf close-growing form of C. circinalis. Mr. NICHOLAS was a good 2nd, having the same varieties of Crotons, with a fine Kentia Belmoreana.

For three Crotons, Mr. MCINTYRE was also 1st, showing C. Warreni, C. Baronne James de Rothschild, and C. angustifolius, all well coloured; as well as being 1st for three Dracænas, with well-grown good varieties. He was again 1st for four foliage plants, viz., Croton Simitziamus being one of his best.

The best four Ferns came from Mr. Jas. Woods, gr. to E. HOPPER, Esq., Morpeth, his varieties being Adiantum Farleyense, extra fine; and Thamnopteris australasica, well developed. Mr. MCINTYRE followed with smaller examples.

Mr. WYLAM, Cramlington, had the best four flowering plants, his Stephanotis floribunda and Allamanda Hendersoni being well bloomed.

Mr. MCINTYRE was allowed a walk over in the class for a large group of 25 feet by 10 feet, taking the 1st prize with an arrangement which was broken up into smaller mounds, the flowering plants being brought, as we considered, too much to the front, otherwise it was effective.

Mr. JAS. WOOD was 1st for the smaller group, consisting of well-grown plants arranged on the old sloping model; the 2nd prize going to a thin arrangement from Mr. F. EDMONDSON, Green Market, Newcastle-on-Tyne.

Some very good freely-flowered Fuchsias were staged, the most successful exhibitors being Mr. ELLIOTT of Felling; and Mr. BALL of High Felling.

The table plants were of good character, but Lilies and Orchids were not shown so well as we expected.

### CUT FLOWERS.

Of these the Roses were the most numerous, and of fine quality, the size and colour of the blooms being remarkable. Messrs. HARKNESS & SON, Bedale and Hitchin, were 1st for forty-eight varieties, with a very even and bright exhibit, the best varieties being Her Majesty (extra colour), Alfred Colombe, Comte de Raimbaud, Earl Dufferin, Gustave Piganneau, and Sénateur Vaisse. Messrs. COCKER & SON, Aberdeen, were a close 2nd, their best being Gustave Piganneau and Captain Hayward, both extra good.

Messrs. COCKER & SON easily beat the Messrs. CROLL & SON for thirty-six varieties, showing a superb lot, notable for size, evenness, and colour, there not being one weak bloom amongst them; the best were Comtesse de Ludre, S. M. Rodocanachi, Captain Hayward, Marie Baumann, and A. K. Williams, both extra fine blooms, with Ulrich Brunner (of unusual quality and colour), and Mrs. J. Laing, with Charles Lefebvre. The 2nd prize box contained fine flowers of Madame Bravy, Victor Hugo, Mrs. J. Laing, and Charles Lefebvre.

For twelve yellow Roses, Messrs. CROLL & SON, Dundee, were 1st with Marie Van Houtte, very fresh, and they were 1st with twelve varieties of Teas, Perle des Jardins, Innocente Pirola, and Niphetos being the finest.

Messrs. COCKER & SON were again 1st for twelve of any other section, with immense blooms of Her Majesty, which although large were not coarse, whilst the form, and even character were all that we could desire.

Mr. WHITTON, of Bedale, was the most successful exhibitor amongst the amateurs, taking the 1st prize and Bronze Banksian Medal for eighteen capital blooms, very fresh and even, the best being Duchess of Bedford (extra good), Dr. Andry, Baroness de Rothschild, and Alfred Colombe. Mr. WHITTON was also 1st for twelve varieties and for twelve Teas in another section, again showing in good style.

Messrs. COCKER & SON were a splendid 1st for eighteen varieties of hardy herbaceous plants, including bulbs, the exhibit making a very fine display, the finest bunches were Alstrœmeria aurantiaca and A. pulchella, Campanula lactiflora, Œnothera Fraseri, Chrysanthemum grandiflorum, Lilium pardalinum, Gaillardia maxima, and Eryngium Oliverianum superbum, the latter unusually rich in colour. Mr. THOS. BATTENSBY, Blaydon, came a good second, three of his best being Veratrum viride, Spiræa palmata, and Alstrœmeria aurantiaca.

*Decorative arrangements.*—Here Messrs. PERKINS, Coventry and Leamington, carried off the chief honours, being first for bouquets in two classes, also first for a basket, and for sprays and button-holes, all of these exhibits being in good taste and in no instance too heavy or excessively large.

Mr. SUMMERS, florist, Sunderland, was a very close competitor in the class for a hand bouquet, where in addition a bronze Banksian medal was awarded with the 1st prize, which was won by Messrs. PERKINS; the only fault being in the former an excess of size.

The best Epergne came from Mr. F. EDMONDSON, a recherché arrangement chiefly of Orchids. Mr. J. BATTENSBY also won 1st prizes for bouquets in the amateurs' classes with superior arrangements; whilst Miss EDMONDSON was a very successful exhibitor of epergnes and baskets.

Carnations, Picotees and Pinks were specially good, so also were the Pansies. Mr. CAMPBELL, Auchinraith, Blantyre, taking two 1sts for the latter (show and fancies). In all of these classes the competition was very keen.

### FRUITS.

Mr. McIndoe, gardener to Sir J. PEASE, Hutton Hall, Guisborough, was 1st for both six and four kinds of fruit, there being no other competitor, the best dishes here were grand ones of Red Magdalen Peaches and Humboldt Nectarines, Transparent Gage Plums, and Black Tartarian Cherries; a large bunch of Bananas was included. The Grapes were scarcely so good as usual from this exhibitor.

In the single-dish classes, Mr. MCINDOE was again successful, taking 1st for a green-flesh Melon with High Cross Hybrid, and 1st for a scarlet-flesh variety, with Premier; he being also 1st with Red Magdalen Peaches; Mr. NICHOLAS followed very closely with the same variety.

For Nectarines, Mr. MCINDOE was 1st again with Humboldt; and for Cherries, with Late Bigarreau.

For four bunches of Grapes, not fewer than two varieties, Mr. J. Mark, gr. to J. C. ARKWRIGHT, Esq., Clitheroe, Lancashire, was 1st, with fine examples of Muscat Hamburgh, large in berry; and Black Hamburgh, also large—both varieties being well coloured. Mr. Tullett, gr. to Lord BARNARD, Raby Castle, came a good 2nd in this class, his Muscat of Alexandria being the best in the show.

Mr. Hunter, gr. to the Earl of DURHAM, Lambton, had the best Black Hamburghs, fine in bunch and finish. Mr. JAS. WOOD had the ripest and highest-coloured Muscat of Alexandria, but the smallest bunches; Mr. MCINDOE following, with much finer bunches. Mr. TULLETT had the finest Madresfield Courts; Mr. MCINDOE being very close, with finer bunches, scarcely so ripe.

For any other white Mr. MCINDOE was easily 1st with well-ripened, clear-looking Duke of Buccleuch.

The Tomato competition was keen, and several splendid dishes were shown, Mr. MCINDOE again coming in 1st with Invincible, apparently a good selection of Perfection.

### MISCELLANEOUS EXHIBITS.

These at Newcastle are very important, and were on the present occasion fully equal to anything before shown. From Messrs. LAING & SON, Forest Hill, S.E., came a grand display of Begonias (tubercus), in the finest varieties of both the singles and doubles now in cultivation. They embraced every shade of colour to be found amongst this section, several of the doubles, notably Mrs. Watson Armstrong, rich apricot buff; W. Clifford, deep rose; Dowager Empress Frederick, blush; and Lady Wantage, rosy-buff. Some of the newer Caladiums and other plants were included, the Begonias having stood the long journey in the best possible manner.

Mr. DOUGLAS exhibited a choice selection of his seedling Carnations (cut blooms), the best being Waterwitch, Duchess of Orleans, a full primrose-yellow; Mrs. Eric Hambro, a pure white, of fine form; Braw Lass, form of Haye's Scarlet, deep rose colour; Mrs. Douglas, sulphur-yellow, rosy-pink edge; and Cardinal Wolsey, apricot-yellow, edged and flaked bright red.

Messrs. F. FELL & CO., Hexham, showed a most extensive group of remarkably well-grown Coniferæ in baskets, &c. These consisted of species of Retinospora, Cupressus, Thuia, and Juniperus, with some capital young plants of Picea pungens glauca. Cut hardy flowers were also included.

From Messrs. COCKER & SONS, Aberdeen, came additional cut hardy flowers, making a great show, including several kinds not often seen.

Messrs. KENT & BRYDON had a bright group of Coniferæ, with Acers, &c.; and a somewhat similar exhibit came from Messrs. J. ROBSON & SONS, which was made brighter by well-flowered Hydrangea paniculata grandiflora.

Mr. J. BIRKENHEAD showed a large assortment of exotic Ferns, small plants in good character. Violas and Pansies came from Mr. S. PYE, Garstang, and other exhibitors. Mr. CUTHBERTSON, Rothesay, had a large assortment of hardy flowers; Mr. CAMPBELL, Blantyre, had Malmaison and other Carnations, the former of deep colour; Messrs. LAING & MATHER had Carnations; and from Mr. H. BROWNHILL, Sale, came a much improved race of the annual Chrysanthemums, a specially fine strain, with larger and finer formed flowers.

## Obituary.

MR. T. H. RABONE.—It is with much regret that we hear of the death, on Saturday last, of Mr. T. H. Rabone, the well-known gardener at Alton Towers. In our present issue we can only

reproduce the photograph of the deceased gardener which was given in the *Gardeners' Chronicle* on October 14, 1876, in our series of British gardeners, but next week we hope to reproduce a few of the facts concerning his early life, then recorded by himself.

HENRI BAILLON.—The death of this accomplished and most energetic botanist is announced. He was born in Calais in 1827, and prosecuted his studies in Paris. For many years he acted as Professor of Botany at the Faculté de Médicine at Paris, and had the charge of the small garden belonging to that institution. Baillon's activity was truly extraordinary. A *Histoire des Plantes* in twelve volumes, a *Dictionary of Botany* in three volumes, innumerable memoirs and monographs attest his diligence. Nor were these works mere compilations, they were the result of actual comparative investigation and remarkable keen insight. Few, if any, botanists of our time had so clear and thorough a knowledge of flowering plants in general as Baillon. He attached great importance to organogeny as a key to deciphering the morphological characteristics and the natural affinities of plants. A quarrel with Decaisne and Duchartre was the occasion of a personal attack on those botanists, which for virulence and persistency has had no equal in our remembrance, and which led to protests from other botanists who deplored the unscientific violence of the critic.

[The term "accumulated temperature" indicates the aggregate amount, as well as the duration, of degrees of temperature above or below 42° Fahr. for the period named: and this combined result is expressed in Day-degrees—a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| Districts. | Temperature. Accumulated. Above (+) or below (—) the Mean for the week ending July 20. | Above 42°, for the Week. | Below 42°, for the Week. | Above 42°, difference from Mean since January 1, 1895. | Below 42°, difference from Mean since January 1, 1895. | Rainfall. More (+) or less (—) than Mean for the Week. | No. of Rainy Days since Jan. 1, 1895. | Total Fall since Jan. 1, 1895. | Bright Sun. Percentage of possible Duration for the Week. | Percentage of possible Duration since Jan. 1, 1895. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | 10ths Inch. | | Ins. | | |
| 0 | 1 — | 83 | 0 | + 133 | + 262 | 1 + | 122 | 22·0 | 16 | 30 |
| 1 | 2 — | 94 | 0 | + 4 | + 415 | 3 + | 98 | 13·7 | 30 | 37 |
| 2 | 1 — | 113 | 0 | + 69 | + 277 | 3 + | 101 | 13·5 | 31 | 35 |
| 3 | 0 aver | 130 | 0 | + 23 | + 283 | 3 + | 87 | 10·3 | 32 | 40 |
| 4 | 2 — | 120 | 0 | + 47 | + 372 | 6 + | 79 | 11·6 | 21 | 37 |
| 5 | 0 aver | 136 | 0 | — 10 | + 333 | 4 + | 75 | 9·4 | 41 | 40 |
| 6 | 1 — | 98 | 0 | + 45 | + 364 | 4 + | 103 | 14·2 | 29 | 35 |
| 7 | 1 — | 113 | 0 | + 48 | + 303 | 4 + | 88 | 13·7 | 24 | 37 |
| 8 | 1 — | 116 | 0 | + 20 | + 337 | 6 + | 82 | 14·8 | 32 | 45 |
| 9 | 1 — | 99 | 0 | + 4 | + 268 | 3 + | 113 | 15·1 | 19 | 34 |
| 10 | 2 — | 106 | 0 | — 45 | + 195 | 5 + | 93 | 16·9 | 25 | 36 |
| * | 1 — | 130 | 0 | + 12 | + 248 | 6 + | 95 | 12·6 | 46 | 50 |

The districts indicated by number in the first column are the following:—

0, Scotland, N. *Principal Wheat-producing Districts*—1, Scotland, E.; 2, England, N.E.; 3, England, E.; 4, Midland Counties; 5, England, including London, S. *Principal Grazing, &c., Districts*—6, Scotland, W.; 7, England, N.W.; 8, England, S.W.; 9, Ireland, N.; 10, Ireland, S.; *Channel Islands.

## THE PAST WEEK.

THE following summary record of the weather throughout the British Islands for the week ending July 20, is furnished from the Meteorological Office:—

"The *weather* during the early part of the week was fine in all the more eastern, central, and southern parts of our Islands, but changeable and showery in the west and north. After the 16th, however, unsettled weather spread gradually from the westward over the whole Kingdom, the rainfall of the 18th and 19th being in many places very heavy. Thunderstorms occurred in several parts of England on the 19th, and thunder was heard in a few isolated places on the 18th and 20th.

"The *temperature* was slightly below the mean in all districts, excepting 'England, E. and S.,' where it agreed very closely with the normal. The highest readings were observed mostly on the 17th or 18th, and ranged from 81° in 'England, S.,' and 78° in 'England, E.,' to 69° in 'Scotland, N., Ireland, S., and the Channel Islands,' and to 67° in 'Scotland, W.' The lowest readings occurred at various times in different parts of the country; at one or two stations in 'Scotland, N. and E., and in Ireland, N.,' the thermometer fell slightly below 40°, but in the 'Channel Islands' it did not go below 48°, while in 'England, N.W.,' 49° was the lowest reading reported.

"The *rainfall* exceeded the mean in all districts, the excess being very slight in 'Scotland, N.,' but large over the central and southern parts of England. In the 'Midland Counties and the Channel Islands' the amount recorded was twice as much as the mean.

"The *bright sunshine* was less than the mean in most districts, the deficiency being very large in the 'Midland Counties.' In 'Scotland, E., England, N.E., and the Channel Islands,' however, there was a slight excess. The percentage of the possible duration ranged from 16 in 'Scotland, N.,' and 19 in 'Ireland, N.,' to 40 in 'England, S.,' and to 46 in the 'Channel Islands.'"

# MARKETS.

## COVENT GARDEN, *July* 25.

[We cannot accept any responsibility for the subjoined reports. They are furnished to us regularly every Thursday, by the kindness of several of the principal salesmen, who revise the list, and who are responsible for the quotations. It must be remembered that these quotations do not represent the prices on any particular day, but only the general averages for the week preceding the date of our report. The prices depend upon the quality of the samples, the supply in the market, and the demand; and they may fluctuate, not only from day to day, but often several times in one day. ED.]

### CUT FLOWERS.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Arums, per dozen blooms ... ... | 2 0 | 4 0 |
| Asters, per bunch... | 1 0 | 1 6 |
| Bouvardias, p. bun. | 0 6 | 1 0 |
| Carnations, 12 blms. | 1 0 | 3 0 |
| Eucharis, per dozen | 1 6 | 2 6 |
| Gardenias, per doz. | 3 0 | 4 0 |
| Lapageria, 12 blms. | 1 0 | 2 0 |
| Lilium Harrisii, per dozen ... ... | 2 0 | 4 0 |
| Lilium lancifolium, per dozen ... ... | 2 0 | 4 0 |
| Maidenhair Fern, per 12 bunches ... | 4 0 | 6 0 |
| Marguerites, per 12 bunches ... | 1 0 | 3 0 |
| Mignonette, per 12 bunches ... ... | 2 0 | 4 0 |
| Pelargoniums, scarlet, per 12 bunches | 4 0 | 6 0 |
| — 12 sprays ... | 0 4 | 0 6 |
| Orchids:— | | |
| Cattleya, 12 blms. | 9 0 | 15 0 |
| Odontoglossum crispum, 12 blm. | 3 0 | 6 0 |
| Pyrethrums, 12 bun. | 2 0 | 4 0 |
| Roses, Tea, per doz. | 1 0 | 2 0 |
| — coloured, p. dz. | 2 0 | 4 0 |
| — yellow (Maréchals), per dozen | 3 0 | 6 0 |
| — red, per dozen | 1 0 | 1 6 |
| — red, per dozen bunches ... ... | 4 0 | 9 0 |
| Stephanotis, dozen sprays ... ... | 1 6 | 2 0 |
| Sunflower (small), doz. bunches ... | 2 0 | 4 0 |
| Sweet Peas, 12 bun. | 2 0 | 4 0 |
| Tuberoses, 12 blms. | 0 4 | 0 6 |

ORCHID-BLOOM in variety

### PLANTS IN POTS.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Adiantum, per doz. | 4 0 | 12 0 |
| Aspidistra, per doz. | 12 0 | 30 0 |
| — specimen, each | 5 0 | 15 0 |
| Calceolaria, per doz. | 4 0 | 6 0 |
| Coleus, per dozen... | 3 0 | 6 0 |
| Cyperus, per dozen | 4 0 | 10 0 |
| Dracæna, each ... | 1 0 | 7 6 |
| — various, doz. | 12 0 | 24 0 |
| Evergreen Shrubs, in variety, per dozen ... ... | 6 0 | 24 0 |
| Ferns, small, doz.... | 1 6 | 3 0 |
| Ferns, various, doz. | 5 0 | 12 0 |
| Ficus elastica, each | 1 0 | 7 6 |
| Foliage plants, doz. | 9 0 | 24 0 |
| Fuchsias, per doz. .. | 6 0 | 8 6 |
| Heliotrope, per doz. | 4 0 | 6 0 |
| Hydrangeas, p. doz. | 9 0 | 24 0 |
| Ivy Geraniums, doz. | 4 0 | 6 0 |
| Lobelia, per doz ... | 3 0 | 4 0 |
| Marguerites, p. doz. | 6 0 | 9 0 |
| Mignonette, p. doz. | 4 0 | 6 0 |
| Palms, various, ea. | 2 0 | 10 0 |
| — specimens, ea. | 10 6 | 84 0 |
| Pelargoniums, doz. | 8 0 | 12 0 |
| Rhodanthe, per doz. | 4 0 | 6 0 |

### FRUIT.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Apples, per sieve ... | 3 0 | 4 0 |
| Cherries, Black, per half-sieve ... | 4 0 | 6 6 |
| — White, do. ... | 4 0 | 7 0 |
| Figs, per dozen ... | 1 0 | 2 0 |
| Grapes, 1st quality, black, English, lb. | 1 3 | 1 6 |
| — 2nd quality... | 0 9 | 1 0 |
| — Muscats ... | 1 6 | 2 0 |
| — Guernsey ... | 1 0 | 1 6 |
| Melons, each ... ... | 1 6 | 2 0 |
| Pine-apples, St. Michael, each ... | 2 0 | 6 0 |
| Peaches, 1st size, doz | 6 0 | 10 0 |
| — 2nd size ,, | 2 0 | 4 0 |
| — 3rd size ,, | 1 0 | 1 6 |
| Red Currants, per half-sieve ... | 2 6 | 3 0 |
| — black, per half-sieve ... | 5 0 | 6 0 |

### VEGETABLES.—AVERAGE WHOLESALE PRICES.

| | s. d. | s. d. |
|---|---|---|
| Beans, Broad, per sieve ... ... | 1 0 | 1 6 |
| Beans, Runners ... | 2 6 | 3 6 |
| Cauliflowers, p. doz. | 2 6 | 3 0 |
| Cucumbers, per doz. | 1 6 | 2 0 |
| Marrows, veg., doz. | 1 0 | — |
| Mushrooms, per lb. | 0 6 | 0 9 |
| Peas, blue, per bag | 4 0 | 6 0 |
| — — per bush. | 2 0 | 3 0 |
| Tomatos, Home-grown, | | |
| — Smooth ,, | 4 0 | — |
| — ordinary ,, | 3 0 | 3 6 |
| — Guernsey ,, | 3 0 | — |

POTATOS.

Market and prices about same as last report. *J. B. Thomas.*

## SEEDS.

LONDON: *July* 24.—Messrs. John Shaw & Sons, Seed Merchants, of Great Maze Pond, Borough, London, S.E., write that, thanks to the recent welcome showers, there is now an improving demand for Trefoil and Rape, and more especially for Mustard seed; all these three varieties now offer on exceedingly tempting terms. New home-grown Rye is coming to market. Full prices are asked for yearling Winter Tares. There is no change in either Peas or Haricots. Bird seeds, at this quiet season, show no fresh feature.

## FRUITS AND VEGETABLES.

BOROUGH: *July* 23.—Quotations:—Peas, 2*s.* 6*d.* to 3*s.* per bushel; Onions, 2*s.* 6*d.* to 3*s.* per bag; Horseradish, 1*s.* to 1*s.* 3*d.* per bundle; Apples, Tasmanian, 6*s.* to 8*s.* per case; Currants, 1*s.* 9*d.* to 4*s.* per half-sieve; Gooseberries, 1*s.* 6*d.* to 1*s.* 9*d.* do.

SPITALFIELDS: *July* 23.—Quotations:—Scarlet Runners, 3*s.* to 3*s.* 6*d.* per bushel; Peas, 2*s.* to 2*s.* 6*d.* do.; Carrots, 2*s.* 6*d.* to 3*s.* per dozen bunches; Turnips, 2*s.* to 2*s.* 6*d.* do.; Cabbages, 5*s.* to 6*s.* per tally; Marrows, 4*s.* to 6*s.* do.; Cucumbers, 2*s.* to 3*s.* per dozen.

STRATFORD: *July* 23.—Quotations:—The supply to this market during the past week has been good, and, with plenty of buyers, a brisk trade was done as under:—Cabbages, 2*s.* to 3*s.* per tally; Turnips, 2*s.* to 2*s.* 6*d.* per dozen bunches; Carrots, household, 1*s.* to 2*s.* per dozen; Mangels, 20*s.* to 24*s.* per ton; Onions, Egyptian, 5*s.* 6*d.* to 6*s.* per cwt.; Beans, Scarlet, 3*s.* 6*d.* to 4*s.* per sieve; do., Broad, 1*s.* 6*d.* to 2*s.* per bag; Peas, 5*s.* to 6*s.* do.; Cherries, 5*s.* to 6*s.* per half-sieve; Berries, 2*s.* to 3*s.* do.; Apples, 2*s.* to 2*s.* 3*d.* do.; do., 3*s.* 6*d.* to 4*s.* per bushel; Marrows, 6*s.* to 7*s.* 6*d.* per tally; Cucumbers, 1*s.* 6*d.* to 2*s.* per dozen; Onions, Ports, 5*s.* 6*d.* to 6*s.* per case.

FARRINGDON: *July* 25.—Quotations:—Raspberries, 2*s.* 6*d.* per half-sieve; Gooseberries, 3*s.* do.; Cherries, 6*s.* 6*d.* to 7*s.* do.; Green Gages, 3*s.* to 4*s.* per basket (12 lb); Plums, 2*s.* per box of 10 lb.; Cucumbers, 7*s.* 6*d.* to 8*s.* per dozen; Cabbages, 3*s.* to 3*s.* 6*d.* per tally; Carrots, 3*s.* per dozen bunches; Turnips, do.; Marrows, 2*s.* 6*d.* per dozen; Broad Beans, 1*s.* 6*d.* per bushel; Scarlet do., 2*s.* 6*d.* do.

## POTATOS.

BOROUGH: *July* 23.—Quotations ranged from 80*s.* to 110*s.* per ton.

SPITALFIELDS: *July* 23.—Quotations:—Puritans, 110*s.* to 120*s.*; Hebrons (Bedford), 100*s.* to 120*s.*; do., Essex, 100*s.* to 110*s.*; Suttons' Regents, 100*s.* to 120*s.*; Yorkshire Hero, 110*s.* to 120*s.* per ton.

STRATFORD: *July* 23.—Quotations:—Old: 20*s.* to 30*s.* per ton. New: Hebrons, 110*s.* to 130*s.*; Kidneys, 100*s.* to 120*s.*, Snowdrops, 110*s.* to 130*s.* per ton.

FARRINGDON: *July* 25.—Quotations:—White Hebrons, 110*s.* to 120*s.* per ton; Red do., 100*s.* to 110*s.* do.; Puritans, 110*s.* to 120*s.* do.

LONDON AVERAGES: *July* 24.—New: Snowdrops, 110*s.* to 120*s.*; Hebrons, 110*s.* to 120*s.*; Early Rose, 110*s.* to 120*s.*; Puritan, 120*s.* to 130*s.*; Early Regents, 100*s.* to 110*s.*; Jersey, 90*s.* to 110*s.* per ton. Old: Magnums, 40*s.* to 50*s.* per ton.

## HAY.

*Averages.*—The following are the averages of the prices at the principal metropolitan markets during the past week:—Clover, prime, 90*s.* to 115*s.*; do., inferior, 50*s.* to 80*s.*; hay, best, 60*s.* to 95*s.*; do., inferior, 30*s.* to 60*s.*; mixture, 70*s.* to 92*s.*; and straw, 20*s.* to 38*s.* per load.

## CORN.

*Averages.*—Official statement of the average prices of British Corn, imperial measure (qr.), for the week ending July 20, and for the corresponding period last year:—1895: Wheat, 24*s.* 4*d.*; Barley, 18*s.* 6*d.*; Oats, 16*s.* 6*d.* 1894: Wheat, 24*s.* 6*d.*; Barley, 19*s.* 6*d.*; Oats, 19*s.* 7*d.*

# VARIORUM.

THE INDIAN SHOT OR CANNA.—It has been stated that the only difference between a weed and a wild flower is, that it is a weed when it comes up where the cultivator does not want it. A wild flower, then, becomes a weed when growing in cultivated ground. One would hardly suppose that the Canna of our gardens, a beautiful wild flower of Florida, is often a great pest to the Floridan horticulturist, and is classed there as among the worst weeds. It seems it appears persistently in low ground, known to cultivators as hummock soil; its root-stocks grow so deep in the ground, that the plough does not turn them out, so that they grow up as bad as ever in newly-ploughed ground. The roots have to be dug out with a spade in order to get clear of them. *"Meehans' Monthly" for July.*

nations, containing shades of bright scarlet to almost pure white. The plants were well grown and profusely flowered. He showed likewise a group of some hundreds of Lilium longiflorum, which were the admiration of all.

Messrs. VEITCH & SONS, Chelsea, staged one of the finest groups of plants the firm has ever sent to the Midlands, and comprised a collection of new Carnations, Rhododendron jasminiflorum well flowered; the newest Nepenthes, and Caladiums. New varieties of Cannas, for which a Gold Medal was awarded. The same nursery firm staged a fine collection of fruit, and a collection of 100 vases of cut flowers.

Messrs. F. SANDER & Co., St. Albans, staged a choice collection of new plants, for which a Gold Medal was awarded. The group included a fine specimen of Dracæna Sanderiana, new Begonias, Alocasia Watsoniana, Eriocnema Sanderæ, a fine new variegated plant; new Palms, Orchids, &c.

Messrs. DICKSON, Ltd., Chester, were awarded a Silver Medal for a collection of cut flowers, consisting of Roses, Gladiolus, Carnations in variety, Phloxes, and other flowers of perennial plants.

Messrs. CUTBUSH & Sons, Highgate, had a Silver Medal for hardy cut flowers, including Carnations. Messrs. WHITE & SON, Worcester, a Silver Medal for thirty-six varieties of herbaceous cut flowers, Gladioli, Gaillardias, Pompon Dahlias, and their new Petunia, Brilliant.

Messrs. ECKFORD & SON, Wem, were awarded a Silver Medal for fifty varieties of Sweet Peas, arranged in vases with foliage.

Messrs. CLIBRAN & SON, Altrincham, had a Silver Medal for a collection of cut flowers; Messrs. HILL & Co., Spotacre, a Silver Medal for a collection of shrubs in pots; and Messrs. PRITCHARD & SON, Shrewsbury, a Silver Medal for a collection of eighty varieties of border Carnations.

## HAMMERSMITH HORTICULTURAL.

THIS part of suburban London has, of course, its Horticultural Society, which doubtless contrives to keep up a love of gardening amongst its heterogeneous population. The district was once well dotted over with large residences in the times when rich citizens were not conveyed as now by rail and coach so far afield to their homes, and there are still existent legends of fine old gardens in and about Hammersmith. Did not the mother of the present President of the Royal Horticultural Society possess a garden but a short way from Hammersmith, that was famous for rare plants and good gardening; and Kensington, Chiswick, and Turnham Green were peopled with nurserymen, florists, and market gardeners. Who has not heard of the celebrated firm of C. & J. Lee; of Salter of Chrysanthemum fame, who escaped with Louis Philippe's fine china dinner service in 1848, which he let select visitors behold in his parlour at Versailles Nursery, Hammersmith, down to 1869, for the deposed King gave it to him, after it was brought over to this country; of Glenny, of Glendinning; of the famous Williams' Bon Chrétien Pear that has made people affluent both here and in the United States of America, and which was found in a Turnham Green garden? Many of the former owners of these gardens are dead and gone, and the land once theirs carries, alas, a crop of houses instead of fruits and flowers!

The Society held an exhibition (the eleventh) on Thursday, July 25, at which were groups of plants shown by amateur and professional gardeners, Mr. WOODHOUSE being 1st among the former, and Mr. BROMLEY among the latter. Nice exotic Ferns came from Mr. Addison, Mrs. LLOYD'S gardener, Merton Lodge, Chiswick; and good Fuchsias were shown by Mr. BUTTERFIELD, a gardener.

Some non-competitive exhibits came from Messrs. C. LEE, of the Royal Vineyard Nurseries, and from Mr. PREWETT, Swiss Nursery.

## CARNATION AND PICOTEE UNION.

JULY 27.—The annual show took place as usual in the garden of the Cottage, Stanley Road, Oxford, on the above date, under the management of Mr. Medhurst, son-in-law and successor of the late E. S. Dodwell. A fine lot of flowers were staged, and admirers of the flower came from various parts of the country.

*Carnations.*—As at the Crystal Palace, so here, Mr. Robert Sydenham, Birmingham, took the 1st prize in the leading class for twelve Carnations, there being six exhibitors; Messrs. Thomson & Co., Birmingham, were 2nd, with a stand only just below the other. Four other prizes were awarded. There were nine competitors with six varieties, Mr. C. F. Thurstan, Wolverhampton, being 1st, and Mr. A. R. Brown, Birmingham, 2nd, six other prizes being awarded.

*Picotees.*—There were five collections of twelve Picotees, Mr. A. W. JONES, one of the Birmingham amateurs, taking the 1st prize with superb blooms; Mr. R. SYDENHAM was 2nd; and four other stands received prizes. There were twelve stands of six Picotees: 1st, Mr. A. R. BROWN; 2nd, Mr. C. R. THURSTAN. Nine prizes were awarded.

*Selfs, fancies, and yellow-grounds.*—These were superb, and perhaps finer than were ever seen at Oxford. There were eight stands of twelve blooms, Mr. A. W. JONES taking the 1st prize with a splendid lot, some of the finest being Gladys, a pink self; Stadtrath Bail, y.-g., very bright; Miss Audrey Campbell, a yellowish self; Germania, very fine; Janira, and Mrs. R. Sydenham. Mr. R. SYDENHAM was 2nd, and six prizes were awarded in all. There were thirteen stands of six blooms: Mr. W. SPENCER, Jun., New Barnet, was 1st with a very fine lot; and Mr. A. R. BROWN 2nd; six other prizes being awarded.

*Yellow Grounds only.*—There were thirteen stands of six blooms: Mr. W. READ, the gardener at the Cottage, taking the 1st prizes; Mr. A. W. JONES was 2nd, and so good were they, that nearly every stand received a prize.

*Single blooms.*—A large number of these were staged, and many prizes awarded.

*Premier blooms.*—The premier Carnation was C. B. J. S. Hedderley from Mr. R. SYDENHAM: the premier Picotee, Madeline, N. R. E., from Mr. A. W. JONES: the premier self Germania, from the same: the premier Fancy, Firefly, scarlet and maroon, a sport from S. B. C. H. Herbert, from Mr. C. F. THURSTAN; and the premier yellow ground, Mrs. R. Sydenham, from Mr. W. SPENCER.

An excellent collection of bunches of hardy plants were staged by Mr. B. LADHAMS, Southampton; Dahlias by Mr. JOHN WALKER, Thame, and Mr. T. ANSTISS, Brill; and seedling border Carnations of excellent quality from Mr. W. Hovell, gr. to G. H. MORRELL, Esq., M.P., Headington Hill; Certificates of Merit being awarded to each.

A large party partook of luncheon in the grounds under the presidency of the Mayor of Oxford.

## FLOWER SHOW AT WELLINGBOROUGH.

JULY 28.—This exhibition took place in connection with the periodical meeting of the Northamptonshire Agricultural Society's show, and was the means of bringing together, in the classes open to all England, exhibits of a high order of merit. Handsome money prizes were offered for twelve stove and greenhouse plants, dissimilar.

Mr. J. CYPHER, nurseryman, Cheltenham, took the 1st prize with grand examples of Kentia australis, K. Belmoreana, Latania borbonica; a magnificent Croton Sunset, C. angustifolius, and Cycas circinalis; a remarkably good plant of Erica Austiniana, E. tricolor vera, Phœnocoma prolifera Barlesii, Ixora Williamsii, &c. Mr. W. Finch, gr. to J. MARRIOTT, Esq., Coventry, was 2nd, with a collection of similar character.

The best plant group came from Mr. W. VAUSE, nurseryman, Leamington; Messrs. H. & E. LACK, nurserymen, Wellingborough, were 2nd.

Mr. FINCH had the best six fine-foliaged plants; Mr. VAUSE taking the 2nd prize.

The best specimen plant was a magnificent example of Zamia Vroomi, some 16 feet in diameter, and having seventy to eighty finely-developed leaves, shown by Mr. C. WILKINS, Wellingborough; so large was it that accommodation had to be found for it in the open. Ferns were well shown in both divisions; in the open class by Mr. J. COPSON, Cottingtree, who was 1st; and in the gardeners' division by Mr. D. WALKER, Wellingborough. In the gardeners' division Mr. FINCH had the best six stove and greenhouse plants, all in flower; Mr. COPSON taking 2nd place. Foliage plants, Caladiums, Gloxinias, Fuchsias, Coleus were good.

*Cut Flowers.*—The open class for twenty-four Roses brought a good competition, the Rev. J. H. PEMBERTON, Romford, taking the 1st prize, having fine examples of Mrs. J. Laing, A. K. Williams, Comte Rainbaud, Caroline Testout, Ernest Metz (Tea), &c.

With twelve varieties of Teas, the Rev. E. G. KING, Gayton, was 1st, having good examples of Princess of Wales, Madame Cusin, Marie van Houtte, and Hon. Edith Gifford.

The best twenty-four bunches of cut flowers came from Messrs. T. PERKINS & SONS, nurserymen, Northampton. In another division for twelve Roses, some good cut blooms of Zonal Pelargoniums and double and single Begonias were staged.

Fruit in quantity was limited, but in quality good. The best collection of fruit came from Mr. HAYES, The Gardens, Castle Ashby, who had Grapes, Pine-apple, a Melon, Peaches, Nectarines, and Gooseberries. Mr. D. PERCIVAL, Wellingborough, had the best three bunches of Black Hamburgh Grapes. Mr. J. CLIPSTONE, Dingley, was the only exhibitor of white Grapes, having Foster's Seedling. Some good Peaches were shown by Messrs. IRONS, SPRATTON and COPSON, also good early prolific Plums.

## T. H. RABONE.

IN our last issue we confined ourselves perforce to the mere mention of the decease of Mr. T. H. Rabone, the well-known gardener at Alton Towers. A full account of his career up to the date of publication was given in our issue for October 14, 1876. From this it appears that Mr. Rabone was born in 1833. In boyhood and youth he served in the gardens at Wellesbourne Hall, Walton House, and Packington Hall. In the last-named place he tells us he had eleven fires to see to on a winter's night, but where he nevertheless educated himself by dint of perseverance. From Packington he went to Shrubland, and thence to Trentham, where he came under the tuition of Fleming. From Trentham he went to Barlaston, where the lessons he had learnt were turned to account, and he became a distinguished exhibitor, as also when he was at Hart's Hill and Woodseat. At the great Horticultural Show at Leicester he took the 1st prize for every dish of fruit he exhibited, six in number. Thence he proceeded to Alton Towers, where he had the superintendence of the garden, the woods, and the estate generally. The closing paragraph of the autobiographical note, from which the above particulars are taken, ends thus—"... it may be that when you are dead and gone your memory will be recalled with gratitude and tears." How true this was of himself is shown by the following extracts from a local paper:—"The Earl of Shrewsbury came down specially from London on the 19th inst., on hearing of Mr. Rabone's serious illness, in order to see him and express his deep sympathy with the family. Telegrams were despatched and received several times each day from the Earl and Countess, and other members of the family. On hearing the sad intelligence on Saturday of his death, the Earl ordered the flag to be hoisted half-mast high on the Towers, and so it remained till after the funeral. All the blinds at the Towers were drawn, and the grounds closed till after the funeral. By all denominations the deceased was greatly respected. He was on the Board of Guardians for Cheadle, was district Councillor for Farley, and a parish councillor. He was a Freemason, and Past Master of the Foresters' Lodge, Uttoxeter, and Past Provincial Grand Swordbearer, Staffordshire. The deceased, though a Wesleyan, retained the greatest affection and love for the Church of England, and was by his own request buried with the rites of the Church in the consecrated portion of the additional churchyard at Alton. The coffin was sent by Mr. Mynors, his lordship's agent at Ingestre, and was made on the estate there. The procession was headed by Mr. W. C. T. Mynors, representing the Earl, and Dr. Hall. At the church gates the body was met by the local clergy and dissenting ministers, and the Rev. R. Barrett (Wesleyan minister, Cheadle), the Rev. W. C. Greene (vicar of Oakamoor), the Rev. C. J. Winser (vicar of Market Drayton), the Rev. C. B. Tyrwhitt (vicar of Cauldon), and the Rev. W. T. Norton (Denstone College). On reaching the church, Mr. Barlow, his lordship's organist, played "O rest in the Lord." The mourners were the Rev. T. H. Rabone, Mr. Henry Rabone, Mr. Frank and Charlie Rabone, the Rev. R. Murphy, and a large body of tenantry and friends. Amongst those who sent floral tributes, numbering nearly sixty, were the Earl of Shrewsbury and Talbot, the Countess of Shrewsbury, Viscount Ingestre, Lady Viola Talbot, Theresa Countess of Shrewsbury, the estate workmen, the gardeners at Alton Towers and Ingestre, the servants at the Towers, and many others.

Mr. Rabone earned for himself the proud title of the gardener's friend. Letters from some of his "young men" are before us testifying to the essential goodness of the man and his kindness of heart. In Dean Hole's *Memories* is the following passage:—"Solace comes to you with the real enthusiast, who shares your admirations, your successes and disappointments, as though they were his own; who is as anxious to receive, as he is willing to give information; as grateful as he is generous. How quickly and happily the hours go, as in his garden, or in yours, or wherever your favourites grow, you suggest to each other new charms, new combinations, new methods of culture. I went to one of the most beautiful of our great English gardens, and meeting the head gardener, asked permission to walk through the grounds, and told him my name. To my momentary surprise he made me no answer, but turning to one of his men at work close by, bade him 'set the fountains playing.' That was his brotherly welcome; and it stirred other fountains beside those which suddenly arose and sparkled in their silvery sheen, and made my heart glad. In this delightful garden there stands a statue of the noble owner who reclaimed it from the waste, and underneath an inscription, 'He made the desert smile, and so our love of flowers and florists makes green spots on the path of time.' In this land of gardens the gardener has troops of friends, and even in places which the world calls desolate, he shall find companions to cheer him, so long as there are Lichens on the mountains, Ferns in the valley, or Algæ on the shore.

The wilderness and the solitary places shall be glad for him, and the desert shall rejoice and blossom as the Rose."

Mr. Rabone rarely came among his Metropolitan colleagues, but he was well known among them as a good gardener and a most conscientious sympathetic man, ever ready to do good to others.

## MR. A. F. BARRON'S RETIREMENT.

THE announcement that Mr. BARRON is shortly to retire from the direction of the hallowed gardens at Chiswick will come as a surprise to many and a shock to some. No doubt the Council of the Royal Horticultural Society have given the matter the most anxious consideration, and have convinced themselves of the expediency of the step in the interests of the Society and of Horticulture generally. Moreover, they cannot have failed to remember the prolonged and unique services which Mr. BARRON has rendered to the Society, and the retiring pension offered to him will doubtless be proportionate to the means at their disposal and to their sense of the value of his services. The older members of the Council have surely not forgotten the staunch, unwavering loyalty which Mr. BARRON displayed during those wretched years of the South Kensington management, when Chiswick was allowed to fall into a miserable state of disrepair. At that time the direction of the garden must have been a constant source of depression to the Superintendent, intensified as it was by an abiding sense of the precariousness of his position. This state of things has happily passed away. Chiswick has been put into good order, and horticulturists long to see it the exponent of progressive horticulture, and the trial ground for all that is promising and instructive. They do not care to see it competing with market-growers in the sale of Grapes, and they think the services of the staff might be more profitably employed than in growing for distribution among the Fellows plants which are readily to be purchased for a few pence at the nearest florist's.

But leaving these matters aside for future consideration, the one uppermost feeling in the minds of those who are familiar with the work of the Society is, that Mr. BARRON should not be allowed to retire without a tangible expression of goodwill and admiration on the part of those who have witnessed his efforts or benefited by his help. His name has been synonymous with staunchness and loyalty. Under circumstances always difficult, not unfrequently perplexing, and sometimes, as we have said, depressing, BARRON has set a fine example of steadfast devotion to duty, whilst outside his official duties his work as the author of the most popular book on Vine culture and his services to the Gardeners' Orphan Fund have given him a claim to the warmest acknowledgments on the part of his friends and associates. In this matter we feel we are but expressing the feelings of many others, for even before the matter was publicly known we have been in receipt of many letters, expressing the same views. It is needless to say that we shall feel it a privilege to co-operate in the matter and to assist in whatever may be determined upon.

# NURSERY NOTES.

## MR. DOUGLAS'S CARNATIONS.

THE little station of Bookham on the L. & S. Western Railway, about 20 miles from London, and in one of the prettiest districts of Surrey, is but little frequented except by school-children and others from the metropolis, who have found the place to be a suitable one for their annual excursion. Since, however, Mr. Douglas has commenced his nursery within five minutes' walk of the place, there have been attractions to the florists also, and these are likely to become stronger each season. It was Mr. Douglas' Carnations we journeyed to see last week, wondering as we did so, what kind of a display we should witness after the extraordinary character of the weather since Christmas. A peep into the first house to be seen, however, was sufficient to assure us that the result of unfavourable weather was not very evident, and after passing through two of these all filled with excellent pot plants, with large stout flower-stems much branched, and bearing countless blooms of striking quality, the conviction was forced upon us that the journey was little compared with the return to be found here, which was such an one that any admirer of these flowers would be satisfied with. Mr. Douglas has long been known as a raiser of new Carnations, and judging from the far greater number he has of seedlings this season, he will be better known in the future; but the varieties at present superior to any others of their sort are those which have been raised in the garden of Martin R. Smith, Esq., Hayes Common, and which are sent out by Mr. Douglas. Each of these admirable varieties is grown in numbers here, and from the abundance of bloom, the effect of each compared with the other can easily be noted. Mrs. Eric Hambro is the most meritorious of all. Its flowers are pure white, very large, being 3 inches in diameter, and of the most perfect form possible; the petals are flat, and the bloom nearly circular. This handsome new variety is one of the finest white varieties ever sent out, and the habit of the plant is strong and free-flowering. Lady Ridley will, perhaps, be equally admired; the flowers are not smaller than the one just described, but the form is not quite so perfect, and the colour is less pure, inclining to cream. Its habit, however, is very commendable, especially the stout footstalks, which make the plant so erect in flower. A charming new rose-coloured variety is found in Sadek; the rose is rich and deep, rather peculiar in tint, and very pleasing. A large quantity of bloom was in perfect condition, and its erect and vigorous habit make it specially desirable. Bendigo has violet or bluish-purple flowers, grows less tall than many kinds, but in habit it is very sturdy, erect, and vigorous. Braw Lass has brighter rose flowers than Sadek, and they are of large size and good form. Some of the very largest had split calyces, but the occurrence was not frequent, and was not to be seen at all in cases of secondary or smaller blooms.

Only four new yellow-ground Carnations and Picotees are to be sent out during the coming season, and of these were noticed George Cruikshank and Cowslip. To speak of the last-named first, Cowslip is a yellow-ground Picotee, with edging of bright rose. It is a good grower, and we could detect no split calyces; the blooms are of commendable form, and apparently the variety is a late one, as there were fewer blooms expanded on these plants than on others. George Cruikshank is an excellent Carnation, of the type of Victory, and although distinct from Cardinal Wolsey, which was sent out last season, it is of the same type. It has a buff-ground, and is flaked with crimson or blood-red. The flowers are very large and extra full, calyces good. In addition to these that have not yet been sent out were the collection of the new ones of last season, such as Cardinal Wolsey, which we have just mentioned, Hayes' Scarlet, which is certainly the finest scarlet Carnation ever raised; Duke of Orleans, dark shade of yellow; Miss Audrey Campbell, brimstone-yellow; The Hunter, rich Apricot-yellow; Corunna, pleasing golden-yellow; Waterwitch, extra large, and of the most delicate blush; Mephisto, lovely crimson, and notably good form; and King Arthur, an exceedingly large flower, 5 inches in diameter, of scarlet-crimson, extra good for a border. Other good Carnations are Snowdon, a large white flower of rather indifferent form, but valuable for a border; Eudoxia, a large flattish flower of salmon-rose; Pride of the Garden, another rose-coloured variety, specially suitable for borders. These last three were raised by Mr. Douglas, as were also the following Picotees: Ladas, clear yellow ground with thin scarlet edge, good flower and stout petals; Mrs. A. Tate, yellow ground, edged and marked with rich red; President Carnot, yellow ground, heavily edged with rosy-scarlet, flowers of considerable size and good in form; Mrs. Douglas, one of the most attractive, having a pale yellow ground, with rose edge, and of very fine form; Mrs. Dranfield, with yellow ground, is rather heavily edged with pale rose. A new velvety-crimson Carnation of exquisite form, named Henry Irving, and raised by Mr. Douglas, well deserves notice; and also a sport from the new yellow-ground Picotee Mrs. Gooden, which we think will be a valued one. Considerable work has been done in the nursery since we last saw it. Roadways have been made, and a dwelling-house is in course of erection. More space than heretofore has been planted with seedling varieties of Carnations; and in spite of a season remarkable for its lack of moisture, the whole collection looks healthy, the plants are well flowered, and there are many amongst them to which the future belongs.

[The term "accumulated temperature" indicates the aggregate amount, as well as the duration, of degrees of temperature above or below 42° Fahr. for the period named: and this combined result is expressed in Day-degrees—a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| Districts. | Temperature: Above (+) or below (—) the Mean for the week ending July 27. | Temperature: Accumulated: Above 42°, for the Week. | Temperature: Accumulated: Below 42°, for the Week. | Temperature: Accumulated: Above 42°, difference from Mean since January 1, 1895. | Temperature: Accumulated: Below 42°, difference from Mean since January 1, 1895. | Rainfall: More (+) or less (—) than Mean for the Week. | Rainfall: No. of Rainy Days since Jan. 1, 1895. | Rainfall: Total Fall since Jan. 1, 1895. | Bright Sun: Percentage of possible Duration for the Week. | Bright Sun: Percentage of possible Duration since Jan. 1, 1895. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | 10ths Inch. | | Ins. | | |
| 0 | 3 — | 74 | 0 | + 125 | + 262 | 0 aver | 127 | 22·9 | 14 | 30 |
| 1 | 3 — | 83 | 0 | — 17 | + 415 | 8 + | 103 | 15·2 | 12 | 36 |
| 2 | 1 — | 111 | 0 | + 65 | + 277 | 19 + | 108 | 16·2 | 21 | 34 |
| 3 | 1 + | 141 | 0 | + 37 | + 283 | 10 + | 93 | 11·9 | 32 | 39 |
| 4 | 1 + | 134 | 0 | + 59 | + 373 | 6 + | 85 | 12·9 | 32 | 37 |
| 5 | 0 aver | 139 | 0 | — 3 | + 333 | 13 + | 81 | 11·2 | 28 | 39 |
| 6 | 2 — | 94 | 0 | + 35 | + 364 | 8 + | 108 | 16·0 | 20 | 34 |
| 7 | 1 — | 116 | 0 | + 50 | + 303 | 12 + | 94 | 15·7 | 22 | 36 |
| 8 | 0 aver | 125 | 0 | + 28 | + 337 | 7 + | 88 | 16·3 | 28 | 44 |
| 9 | 2 — | 97 | 0 | — 4 | + 268 | 7 + | 119 | 16·6 | 15 | 33 |
| 10 | 2 — | 109 | 0 | — 52 | + 195 | 15 + | 99 | 19·1 | 21 | 35 |
| * | 1 + | 141 | 0 | + 23 | + 248 | 3 + | 100 | 13·5 | 34 | 50 |

The districts indicated by number in the first column are the following:—

0, Scotland, N. *Principal Wheat-producing Districts*—1, Scotland, E.; 2, England, N.E.; 3, England, E.; 4, Midland Counties; 5, England, including London, S. *Principal Grazing, &c., Districts*—6, Scotland, W.; 7, England, N.W.; 8, England, S.W.; 9, Ireland, N.; 10, Ireland, S.; *Channel Islands.

## THE PAST WEEK.

THE following summary record of the weather throughout the British Islands for the week ending July 27, is furnished from the Meteorological Office:—

"The *weather* was again dull and unsettled very generally, with frequent and heavy rain in nearly all parts of the kingdom. Thunder and lightning also occurred from time to time in almost all districts.

"The *temperature* slightly exceeded the normal in 'England, E.,' and the 'Midland Counties,' as well as in the 'Channel Islands,' and just equalled it in 'England, S. and S.W.;' elsewhere, however, it was below the mean value, the deficit amounting to as much as 3° in 'Scotland, N. and E.'

# WILLS AND ADMINISTRATIONS.

# 1895.

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**RABBETH** George of Siboure Carlton-road Weymouth Dorset gentleman died 27 March 1895 Probate **London** 23 April to Henry John Rabbeth and George Michael Rabbeth varnish manufacturers and Frederick Butcher stationer Effects £4038 17*s.* 6*d.*

**RABBETS** George of Trinity-road Weymouth Dorset formerly butcher died 8 November 1895 Probate **Blandford** 4 December to Emily Rabbetts widow Effects £860 4*s.* 7*d.*

**RABBITTS** Charles of the "Royal Arms" Fordingbridge Hants innkeeper died 10 July 1895 Administration **Winchester** 18 September to Frances Mary Ann Rabbitts widow Effects £59 14*s.* 8*d.*

**RABETT** Andrew Wilkinson of Colchester boot finisher died 7 March 1895 Administration **Ipswich** 4 April to Emma Rabett widow Effects £76 13*s.* 1*d.*

**RABITSCH** Charles of South-road Waterloo near Liverpool died 26 April 1895 at Mill-road infirmary Liverpool Administration **Liverpool** 13 September to Clara Rabitsch widow Effects £46 4*s.*

**RABLING** Kezia of Camborne Cornwall widow died 30 March 1895 Probate **Bodmin** 3 August to Elizabeth Anna Braund widow Effects £599 16*s.*

**RABONE** otherwise **RAWBONE** Thomas Hervey of Alton towers Cheadle Staffordshire died 20 July 1895 Probate **Lichfield** 27 August to Louisa Tranter Rabone widow Effects £2118.

**RABY** Edwin of 3 Woodford-villas Mannamead Plymouth gentleman died 2 June 1895 at Plympton Surrey Probate **London** 4 October to the reverend John Raby clerk Effects £1472 6*s.* 6*d.*

**RABY** Francis of Overton near Lancaster retired lighthouse keeper died 31 October 1895 Probate **Lancaster** 3 December to John Raby fisherman Effects £72 9*s.* 1*d.*

**RABY** James of Downham market Norfolk gentleman died 9 August 1895 Probate **Norwich** 31 October to Frederick Glasscock harness maker and George Rayner assistant overseer Effects £3 12*s.* 4*d.*

**RACE** Francis of Etherley Dene near Bishop Auckland county Durham colliery manager died 20 March 1895 Administration **Durham** 10 April to Annie Jane Race widow Effects £137 5*s.*

**RACE** Matthew of Pinfold-lane Butterknowle Lynesack county Durham coke drawer died 20 July 1895 Probate **Durham** 9 October to John William Taylor grocer's assistant and the reverend Thomas Lawson clerk Effects £120 16*s.* 9*d.*

**RACE** Phebe of Horbury Yorkshire widow died 3 October 1895 Probate **Wakefield** 30 December to Thomas Barker solicitor Effects £1803 0*s.* 5*d.*

**RACINE** Anne of 60 Gore-road Victoria park Middlesex spinster died 2 January 1895 at the Middlesex hospital Cleveland-street Middlesex Probate **London** 5 February to Henry John Bliss auctioneer Effects £2719 11*s.* 9*d.*

**RACKHAM** the reverend Robert Reeve of Bintree rectory Bintree Norfolk clerk died 18 May 1895 Probate **Norwich** 14 June to Louisa Ann Rackham widow Effects £3591 19*s.* 8*d.*

**RACKHAM** Thomas John Carter of the Grove Catton Norfolk gentleman died 7 January 1895 Probate **Norwich** 22 November to Frances Eliza Rackham widow and Agnes Mary Rackham spinster Effects £544 1*s.* 2*d.*

**RACKLEY** Charlotte of 3 Highbury-place Lower-Bronshill-road Torquay spinster died 10 March 1895 Probate **Exeter** 30 March to Emma Jane Spencer (wife of Richard Spencer) Effects £225 12*s.* 10*d.*

**RACTLIFFE** Charles of Lower Lypiatt Stroud Gloucestershire farmer died 9 November 1895 Probate **Gloucester** 23 December to George Robert Ridler Ractliffe and William Thomas Wallis farmers Effects £1682 14*s.* 2*d.*

**RACTLIFFE** Enoch of Evenlode Worcestershire farmer died 10 September 1895 at Oxford Administration (with Will) **London** 1 October to Sarah Ractliffe widow Effects £234 17*s.*

# A NOTABLE MIDDLESEX GARDEN.

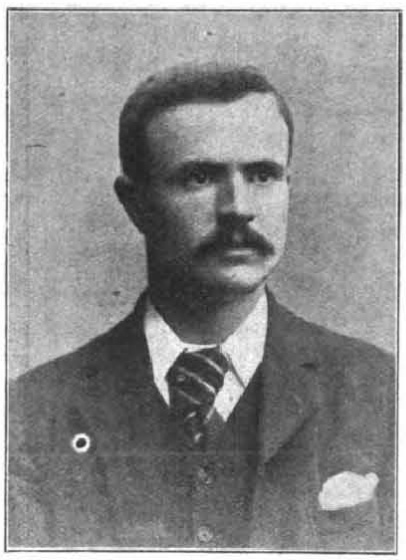
## Interview with Mr. J. Rawlings, at Ridgemount Gardens, Enfield.

By the courtesy of Mr. Henry Bailey, the owner of Ridgemount, I recently had the opportunity of inspecting a notable Middlesex garden. It is notable because between ten and eleven years ago the site was pasture land; because of the remarkable position it occupies, because it is laid out in terraces on the slopes of the hill, with broad paths of grass or gravel to give access to every portion of it, and notable not least for its manifold charms, its evidences of careful cultivation and admirable taste. The house, which faces east to The Ridgeway, and is therefore situated on the heights of Enfield, is, of course, on modern lines, with a pleasant frontage to the main road. But the approach does not prepare one for the surprising extent of the garden, which covers five acres, and seems to cover ten. It forms quite a panorama as seen from the terrace in front of the verandah, and yet has the advantage of being quite secluded. Attached to the house is a large conservatory, which is always kept bright with flowers. When I saw it, early in March, there was a fine show of Cinerarias in the front, and also of Cyclamen. I asked Mr. Rawlings, the head gardener, who showed me round, when the Cyclamen began to bloom, and he replied,

"Before Christmas. They are most useful for table decoration, and will last three or four days in water. The double, early-flowering Tulips have been in bloom for three weeks."

"They were grown indoors?"

"Yes, all our Tulips are. We begin to get them at Christmas, starting with Duc van Thol, scarlet and white. Other varieties largely used are Kaiserkroon, Cottage Maid, and Yellow Prince. The Primulas in flower are sinensis, and stellata, neither of which like the sun. A few Arum Lilies complete the contents of the conservatory at the moment. Perhaps, as the range of plant houses is close at hand, you would like to see them next."



MR. J. RAWLINGS.

### Cut Flowers for the House.

"I notice that you have a number of Pelargoniums in your greenhouse."

"We grow in this range for conservatory work, for garden decoration, and for cut flowers for the house. Pelargoniums, Show and Zonal, are grown here; so are Fuchsias, Roses, Orchids (chiefly Dendrobium nobile, Cœlogyne cristata, Cymbidium Lowianum, Cypripedium insigne, and Odontoglossums Crispum and grande), and Begonias Gloire de Lorraine, Turnford Hall, and Gloire de Sceaux, the two first in quantity."

"What are your varieties of Fuchsias?"

"Chiefly Ballet Girl, Charming, Mrs. Rundle, and Royal Purple. In addition to conservatory decoration, we use Fuchsias for making up big tubs to stand on the terrace."

"The principle, continued Mr. Rawlings, "is to get a succession of different flowers, rather than to have quantities of a few. Thus, although Schizanthus do well, I do not want them all the year round."

### How to Tie Schizanthus.

"But you make a fine show of them in the conservatory."

"They look very well at the back, all facing one way. It is far better to tie them up loosely than stiffly. Among other flowering plants in their respective seasons are Ghent Azaleas, Verbenas (Miss Willmott), herbaceous Calceolarias, and Perpetual-flowering Carnations, of which the varieties are principally Mrs. T. W. Lawson, Crusader, Flamingo, Fair Maid, Enchantress, and Harlowarden. Then, there are the Chrysanthemums."

### The Succession in the Conservatory.

"Taking the year, what would be the order of the arrangement for the conservatory?"

"We begin spring with Freesias, Tulips, Daffodils, and Lachenalias Nelsonii, which have to be planted at the end of July; then, the Cyclamen, Primulas, Cinerarias, and Arums, with Ferns and a few foliage plants, follow. Next come a combination embracing Azaleas, Deutzias, Schizanthus, Marguerites, Pelargoniums, Calceolarias, Fuchsias, Gloxinias, Begonias (chiefly doubles), Liliums in variety, and Campanula pyramidalis."

### Chrysanthemums for Five Months.

"And Carnations?"

"No, the Carnations are kept for cutting in October and onward, until flowers are plentiful outside. But from November to February, Chrysanthemums, with Salvias Zurich, largely occupy the space."

"How many Chrysanthemums do you grow?"

"Three hundred. Of these, a hundred are Japanese, some of the best being Madame Oberthur, Mrs. E. Beckett, Mrs. G. Mileham, Mrs. A. T. Miller, F. S. Vallis, Reginald Vallis, Magnificent, Splendens, and Thomas Stevenson. For early work outside, the best include Wells' Scarlet, Horace Martin, Nina Blick, Harvest Home, J. H. Runchman, and Lily Riddel, the last two being singles. Here are six of the best bush varieties, Caprice du Printemps, Kathleen Thompson, Market Red, Miss Elise Dordan, Source d'Or, and Souvenir de Petite Amie. The best singles for inside include Grace, Annie Farina, Fair Rosamond, Sir G. Bullough, and Mary Richardson. But I take the keenest interest in the late Chrysanthemums, which flower from December to February."

### The Treatment of Late-flowering Varieties.

"I should like to know which of the varieties you consider most suitable for the purpose."

"Heston White, a sport from Winter Cheer is one; it is always reliable, grows to a height of about four feet, is robust, and does not suffer from mildew. Winter Cheer itself is an excellent pink of the same height, and equally reliable. I can strongly recommend Allman's Yellow, which lasts well into the new year, and is about five feet high. Another deep yellow is Nagoya, which is exceptionally fine about Christmas. It requires to be disbudded. W. J. Crossley is an admirable crimson, five feet high. Red Canning betrays its colour by its name; it does best in 6-in. pots. One of the very best is Tuxedo, a charming bronze, which shows to advantage under artificial light."

"How do you treat the late-flowering plants?"

"Much the same as the others, except that I keep them back under lights against a fence. The aspect is north, and the sun cannot touch them. They are well matted. But the vital point in growing a late Chrysanthemum is to keep the sideshoots pinched out, in order to throw all the strength of the plants into the selected buds. Otherwise, the plant makes a tangle of weak growth and does not flower satisfactorily."

### The Formal Bedding.

In the pits were Tomatoes—Carters' Sunrise (which Mr. Rawlings warmly praised), Perfection, and Duke of York; and then, after observing a small piece of kitchen garden, with Peaches on the fence, and the creepers on the front of the house (chiefly Felicite Perpetue Rose, and Pyracanthus), we commenced our tour of the pleasure grounds.

"What is the nature of the soil?" I enquired, as we first turned our attention to the formal bedding nearest the conservatory.

"Very heavy clay. In these beds we aim at a combination of colours, red, yellow, white, and blue. The centre beds in spring are chiefly filled with yellow Wallflowers, and Myosotis, the others having red Wallflowers, with double white Arabis, which is very strong about the end of April and the beginning of May. In summer, scarlet Geraniums are largely used, edged with Little Dandy, and double blue Lobelia. The latter is successful when it is fully exposed to the sun."

### Old Clove Carnations for Edging.

"I observe that each side of the terrace is planted with shrubs."

Yes, there are no bare borders, even in winter. One of the shrubs which does well out of doors



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is Choisya ternata; but you will see many others. Also, on each side of the terrace, are standard Roses and Old Clove Carnations. In the summer we put in Nicotianas to occupy the blank space. With regard to the Old Cloves, which form an edging, they should not be grown for more than three years; the second year is the best. I always layer a few each year, and keep weeding out the old plants."

Old and Young Trees.

"Now," said, as we proceeded past the fountain, which is approached down slopes, and has adjacent a Rose bed representing a crown, "if you will pass this special feature by we'll go along, beginning with the trees, of which I see you have an interesting collection, old and young?"

"The old Oaks on one of the boundaries were here, of course, when the garden was laid out. The promising young trees are Poplars. Chestnuts, Copper Beech, Silver Birch, Acacias, Elms, and deciduous Conifers includes Cedrus deodora, Abies in variety, and Cupressus Lawsoniana. Pinus in variety, and three good Lawsonianas. Shrubs with bright-coloured foliage for the autumn and early winter are largely used."

The Collection of Flowering Shrubs.

"Variegated Hollies in particular?"

"Yes, Hollies, Box, Retinosporas, gold and silver Privets, Ivies, and Aucubas all flourish. There are several varieties of Ivy, which, grown with golden Euonymus on the banks, are very effective."

"How do you treat the flowering shrubs?"

"Flowering shrubs also seem to be exceedingly well represented."

"Among the most prominent are the flowering Almond and Peach, Forsythia suspensa, Laburnums, Hawthorns (double-red, pink and white), Lilacs in various shades of colour, Spiraea Thunbergi, Pyrus japonica, Weigelas, Herbertii, Darwini, Philadelphus in variety, Deutzias candidissima and gracilis, Magnolias, Viburnum opulus, Veronica Traversii, Clerodendron trichotomum, and Rhododendrons. Prunus pissardi and Acer negundo variegata are largely planted, with the view of throwing up the contrast between their silver and purple foliage."

The Clothing of Summer Houses.

"How do you cover your various picturesque summer-houses?"

"With Roses, Honeysuckles, and Jasminiums. The arches and screens are covered with Clematis, Ivy, Wistaria, Virginia Creeper, and Roses. In fact, there are Roses everywhere. We have about a hundred varieties. They are grown in different parts of the grounds. The collection of Town in large masses, and nearly all the different types are represented in standards, dwarfs, and climbers."

The Best Rose.

"Which do you consider the most useful of all your Roses?"

"Caroline Testout. It is the best for colour, the most free-flowering, and does as well in the autumn as in the early summer. We get two crops of bloom every year, and the second is as fine as the first. Frau Karl Druschki, I think, stands second only to Caroline Testout. Other very good varieties include Madame Abel Chatenay, Madame Ravary, Lady Battersea, the Rev. A. Cheales, and Dorothy Perkins, Crimson Rambler, W. A. Richardson, and Felicite Perpetue. You have seen the specimen of this last Rose on the east front of this house, and for such a position there is nothing to beat it."

"You have Lilies in the basin of the fountain?"

"And also in the pond. They are chosen for colour and effect for different seasons. In the pond there are also clumps of Richardia africana, various other plants, and fine goldfish."

"What are the principal varieties of Narcissus grown in the borders and in the grass?"

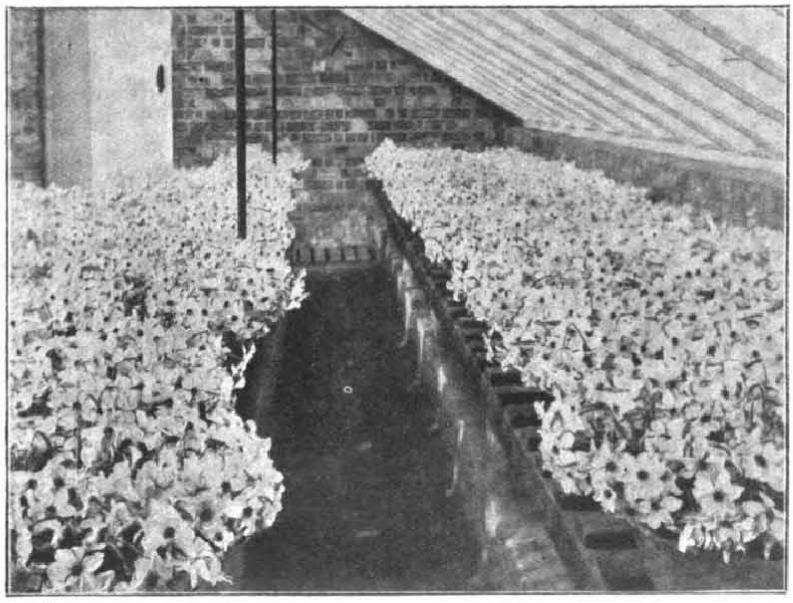
"Perhaps the best varieties, and those most largely used, are Sir Watkin, Horsfieldi, Barri conspicuus, and various Leedsii. We commence with the early-flowering obvallaris at the end of March, and finish at the end of May with the poeticus section. For spring work here, we use chiefly Arabis, Myosotis and Polyanthus. In summer, each bed contains only one variety, chosen with a view to harmony of colour. The beds are filled respectively with Heliotropes, Verbenas, Stocks, Asters, Antirrhinums, and Pentstemons. We are now reaching one of the special features of the pleasure grounds."

A Unique Feature.

"You mean the long and beautiful grass walk?"

"Yes, it is two hundred yards long and fifteen feet broad. On one side is a wide, irregularly-shaped border of shrubs and flowering plants, and on the other, a 3-ft. border backed by a hedge formed of lengths of Cotoneaster Simonsii, Penzance Sweet Briers, and Privet. At intervals along the whole length there are little recesses with seats, the former made of ironwork and covered with climbing Roses and Ivy. Each has a different variety of Rose in front, such as Tea Rambler, Leuchstern, Electra, and Crimson Rambler."

"What is the large structure in the centre of the walk composed of?"



FLOWER CULTURE IN THE FENS.
Forcing Narcissi into Bloom under Glass.

"Rustic woodwork, and it is covered with various varieties of Ivy. Here is a fine show of Penzance Briers trained on wires nine feet high. In the borders are herbaceous plants in variety, notably German Iris, Phlox in variety, Anchusa italica (Dropmore variety), Rudbeckia Golden Glow, Campanulas, Hemerocallis, Michaelmas Daisies, and early Chrysanthemums. Here also are many of the Conifers and shrubs I have already alluded to, planted for colour and effect for different seasons. One side of the walk gives out into a large tennis-court, and the other side into the kitchen garden."

Hardy Fruit.

"In the kitchen garden, I see that you have a number of promising young fruit trees."

"The best varieties of Apples are Cox's Orange Pippin, Mr. Gladstone, Devonshire Quarrenden, Worcester Pearmain, Peasgood's Nonsuch, Lord Suffield, Keswick Codlin, Cellini Pippin, Ecklinville Seedling, Lane's Prince Albert, Bramley's Seedling, and Warner's King. The Pears are chiefly Jargonelle, Louise Bonne of Jersey, Pitmaston Duchess, Beurre Bosc, and Fondant d'Automne; the Plums are Early Prolific, Greengage, Victoria, Coe's Golden Drop, Jefferson's, President and Goliath; the Peaches, Royal George and Hale's Early. The Loganberry and Cut-leaved Blackberry fruit well on wood trelliswork; and we get good crops of Strawberries from Kentish Favourite, The Laxton, and Givon's Late Prolific."

"Do you get a large crop of Morello Cherries on the boundary fence?"

"We have never failed, during the five years I have been here, to have the fence covered with fruit. The aspect is north, and they do not flower until the middle of May, after the frosts have usually ceased to trouble us. With regard to vegetables, we grow pretty well all kinds, and in large quantities—Potatoes in five varieties, Peas, Runner Beans, and Asparagus."

"What about Sweet Peas?"

"They are planted in masses for cutting, and we have from eighteen to twenty named varieties."

The Value of Megaseas.

Leaving the kitchen garden, we made our way to another portion of the grounds, which is known as the "wild garden." Here are clumps of common Gorse, a lake with a waterfall and rustic bridge, edged with Megaseas, behind which are a number of shrubby Spiræas, and, further back still, Sunflowers and other tall-growing plants.

"How do you treat the Megaseas?" I asked.

"There is no treatment. We simply plant them, and let them take their course. They come into flower about April. There are two varieties—rose-pink and a paler shade. They are suitable for a bold outline, a clump or a rockery. One great advantage is that they are evergreen."

A Fence of Nuts.

"I see that you go in for Nuts."

"They are trained on wire to form a hedge, and underneath them in spring are quantities of Daffodils, which are so late in flowering, and take so much out of the ground, that nothing will follow them. The Nuts are chiefly Kentish

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Cobs, and Filberts, and in the grass are Apple, Pear and Damson trees planted promiscuously."

"What was your previous experience, Mr. Raw lings, before you came here five years ago?"

"I started in Herefordshire, and I have since held appointments in Shropshire, Denbighshire, Northamptonshire, Essex, and at Hampstead. In the three last, namely, Selby Hall, The Goldings (Brentwood), and Belsize Court I was foreman. This is my first position as head gardener."

Alfred Wilcox.

Mr. Wilcox's article for next week will be entitled "A Florist's Reminiscences," being an interview with Mr. James Thurston, of Wolverhampton.

Bulbs after Flowering.

SPEAKING generally, bulbous plants are neglected after they pass out of flower, with the result that they are unable to build up their tissues for future efforts. We find that under natural conditions the foliage matures and ripens in a very gradual quite dead should the bulbs be lifted and stored.

A word as to bulbs in the grass. It becomes necessary to tolerate a somewhat untidy appearance of the portion of lawn devoted to them for a few weeks after they pass out of flower, but if cut with a scythe at the proper time, and a dressing of nitrate of soda is applied, it quickly resumes its normal appearance.

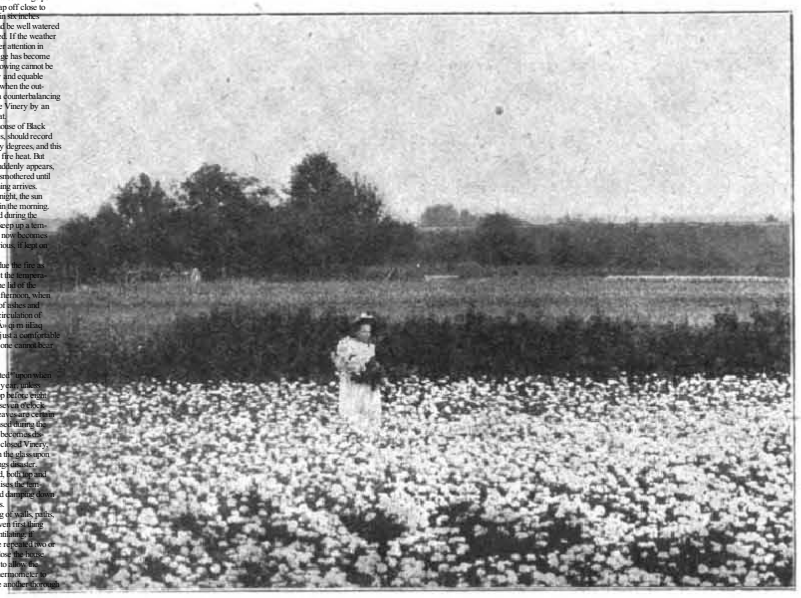
Walter H. Aggett.

Fruit Under Glass.

WORK IN THE VINERY.

SO far the spring-quarter has kept up its reputation for climatic inconstancy. The prevailing winds, too, have been very searching, thus rendering the ventilation of fruit houses a matter requiring considerable caution. The nights, on the whole, have been cold and often frosty, necessitating a liberal use of artificial heat in maintaining a comfortable temperature.

The management of the fire is a matter of great moment, and until this detail is thoroughly



A Field of Pyrethrums, grown by a Spalding Small Holder.

mastered success in Grape-growing cannot be achieved. Vines need a steady and equable temperature at all times, and, when the outside thermometer fluctuates, a counterbalancing change should take place in the Vinery by an intelligent regulation of the heat.

During a cold, sunless day, a house of Black Hamburgh, or kindred varieties, should record a temperature of about seventy degrees, and this must, of course, be kept up by fire heat. But should it happen that the sun suddenly appears, the fire must be immediately smothered until the time of stoking up for evening arrives. Frequently after a cold, clear night, the sun makes his presence felt early in the morning. In such cases, the fire required during the night and very early hours to keep up a temperature of sixty-five degrees now becomes superfluous, and, indeed, injurious, if kept on far into the morning.

On bright mornings, then, subdue the fire as soon as the sun begins to affect the temperature of the Vinery, and open the lid of the furnace wide until late in the afternoon, when the fire should be raked clear of ashes and clinkers and started. A gentle circulation of

heat in the water pipes by eight or nine

o'clock should be aimed at—just a comfortable warmth, not a fierce heat that one cannot bear with the hand.

**Ventilate Carefully.**

Early ventilation must be insisted upon when the day is fine. At this time of year, unless a little air be admitted at the top before eight o'clock in the morning—and seven o'clock would be better—scorched leaves are certain to result. The moisture condensed during the night upon the leaves does not becomes dissipated in the stagnant air of a closed Vinery, and powerful sunshine through the glass upon the wet and tender foliage brings disaster. Ventilation should be increased, both top and front, as the heat of the day raises the temperature within the Vinery, and damping down should be frequent and copious.

A good syringing and damping of walls, paths, pipes, and border should be given first thing in the morning, just before ventilating, if possible, and damping may be repeated two or three times in the forenoon. Close the house early enough in the afternoon to allow the pent-up sun heat to raise the thermometer to about ninety degrees, and give another thorough syringing and damping.

**Stopping Sub-Laterals.**

The stopping of lateral growths will demand constant attention. With the principal shoots thinned to one on each spur, and each of these shoots stopped at the second point beyond the bunch, sidegrowths will soon make headway. Where the space is fully occupied, nip out the points of these sub-laterals at the first leaf, but, if it happens that a few extra square feet of roof remain to be covered, leave three or four joints, and so, in course of time, fill up the available roof space. A plentiful spread of healthy foliage, provided it is not overcrowded, is a great aid to the perfecting of the fruit; but it should be borne in mind that as soon as the rods have made enough growth to cover the trellis, all sub-laterals produced afterwards must be kept closely within bounds.

Vines in flower are particularly benefited by free ventilation, as a means of drying the pollen and distributing it amongst the inflorescence. The rods may be gently tapped at intervals during the bright days as a further aid to the dispersion of pollen and the setting of the berries.

**Thinning the Fruit.**

Commence the removal of surplus bunches and the thinning of those remaining as soon as the berries begin to swell. The great danger to be avoided at this stage is overcropping. A pound of Grapes to every foot of rod is a good old maxim, but one which, we fear, is often disregarded. It is true that healthy, well-managed Vines will carry heavier crops than this with apparent impunity; but, so serious is the result of the overcropping of less robust rods, that it is best to be on the safe side.

Thinning of berries should be done with a pair of Grape-scissors, a short, thin stick being also useful to lift the shoulders of the bunch while the inside berries are cut out. A properly thinned bunch should represent merely the skeleton of its former self with all inside berries removed and the outer ones judiciously thinned.

When thinning is done, a dressing of Vine manure will materially assist the swelling of the berries, and occasional applications of liquid manure will also be beneficial. Place a light mulch of manure upon the border to maintain an equable temperature at the roots and to check evaporation. Take care that the border does not become dry, especially beneath the hot-water pipes.

J. E. S.

Laurels should not be cut back before June or July. Then new growth is rapidly made, and the blanks caused by the knife are soon hidden. Shears must never be used for this operation, as they badly mutilate the leaves.

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is very slight. At least, that is my experience, and I have several times planted in what only two or three months before had been grassland, just the place where pests are most numerous.

### THE PLAGUE OF RATS.

August 23rd.—Why should one result of the war—if indeed it be a result of the war—be a plague of rats? For many years we never saw a sign of a rat, and now they seem to swarm all round. They raided my Peas, and completely destroyed whole rows. I have heard of their killing young ducks and doing much other damage. Curiously enough, birds that prey on them, hawks and owls, are also more numerous than they used to be, yet the rats have greatly increased in number. When the corn is stacked most of them will be drawn away from gardens, and measures should be taken for destroying them where they congregate. We shall probably hear many tales of the destruction caused by them to stacks. H. C. DAVIDSON.

## THE VERBASCUMS.

The Verbascums, or Mulleins, are prominent members of the herbaceous border during late summer, and the new varieties which are now to be had greatly excel the older types. These Mulleins are of easy growth, any ordinary soil serves for them, and the majority are quite hardy. Propagation is very easy by root division in the autumn or spring; by seeds in cases where they ripen properly; or by cuttings in a few instances.

The genus includes a number of biennial sorts, first amongst which is V. olympicum, one of the tallest and noblest of them all. The flowers are a brilliant yellow, and the plant has a fine appearance. Slightly smaller is V. pulverulentum, also yellow, with downy leaves; this variety sometimes grows to a great height, but with us it seldom exceeds five to five and a half feet, and we prefer it like that. V. crassifolium, another but much smaller bienniel; V. Thapsus, the wild Shepherd's Club or Aaron's Rod; and V. longifolium, are not worth growing except in the wild garden. All these bear yellow flowers.

Among the perennials first place must be given to V. phœnicum, which has purple-red flowers, although present-day gardeners know the many varieties better than the type. V. Chaixii, the Nettle-leaved Mullein, is rather pretty and attractive; its flowers are yellow. V. cupreum, with brownish-yellow flowers, is an artificial hybrid raised to a species; and V. nigrum, the Black Mullein, is only worth growing in the white or album variety. V. Weidmannianum is also a pretty type, with deep purple flowers.

### NEW VARIETIES.

Over fifty varieties of improved Verbascums are on the market, but the really good kinds are within the dozen. Harkness' Hybrid is a fine, noble plant, reaching to a height of over six feet; it has the typical woolly leaves and close spikes of yellow flowers. Miss Willmott is much similar to it in habit, but the flowers in this case are white. Caledonia is perhaps more common than either of these two, though less pretty; its flowers are a nice yellow, suffused with bronze. A. M. Burnie has flowers of a rosy bronze; Nellie bears a profusion of closely-packed copper-orange blossoms; while the nearest to red and pink that I know are Ivanhoe and Warley Rose. To make up the number to a dozen there might be added the following five good sorts: New Departure, Lewaniko, Mrs. Arnott, International, and Leeming Bar. H. H. A.

Applications have so far been received by the Board of Agriculture for the inspection of about five thousand acres of immune Potato crops, which are being grown for the sale of seed to be planted in scheduled areas next year.

## FAMOUS BRITISH GARDENS.

### THE HOLLIES, BOXMOOR, HERTS.

*Interview with Mr. A. Reed.*

THE HOLLIES, Boxmoor—which, by the courtesy of Mr. R. J. Price, I visited early in July—is most delightfully placed on the top of rising ground. The front of the house faces east, and is only a few yards from the public roadway, yet so fine are the tall trees, and so dense the undergrowth of shrubs, that perfect seclusion is obtained. Trees, indeed, are a noticeable feature on all sides, for they form a protecting belt to the north and west, and open here and there on the south, giving from this side some lovely views across the country to Berkhamsted and Bovindean. The estate, including a farm, is some seventy-five acres in extent, out of which the pleasure grounds occupy four to five acres, and the kitchen gardens three acres.

Mr. Alfred Reed, who came to take charge of the gardens two years ago—six months before Mr. Price became the owner—may be said to have inherited the gardening instinct, for his grandfather was head gardener at Cliffe Court, Lowestoft, for upwards of thirty years; while his father was formerly landscape gardener to Messrs. Cutbush and Sons. Before taking up this post at The Hollies, Mr. Reed was for ten years in charge of the gardens of Mr. Toutney, at Hythe.

THE HOLLIES, BOXMOOR.

"When I came here," he remarked, as we started to walk round, "there was little or nothing in the gardens, as, owing to shortage of labour, the place had been 'let go,' and in the houses it was the same, the only things that were attended to being the Peaches and Vines."

"Are you making any alterations?"

"Several. For instance, the paddock which is to the south-west of the house is to be taken in to extend the lawn. This year it has been mown for hay. Along one side we are going to have a Sweet Brier hedge, and in place of the path which skirts the paddock, a new path will be cut across it, and this will be made into a Rose pergola."

### HANDSOME TREES.

"You have some grand old trees hereabouts."

"Yes; on the corner of the lawn you can see a lovely Copper Beech, whose rich bronzy-crimson foliage is in marked contrast to the one in the corner near the front of the house, which has a lot of green leaves through being sheltered by other trees. Those two fine Poplars are over eighty feet high, and the Wellingtonia is very noticeable."

The Copper Beech is indeed a noble specimen, with a remarkable spread of the branches in comparison with the height; and two Cedars also attracted attention. One of them is Cedrus atlantica; the other, which lost some good branches in a snowstorm last spring, is Cedrus Deodara. An avenue of Scotch Fir acts as an efficient wind-break on the north-west. This we passed under as, following the path on the outside of the lawn, we made our way in a semi-circle from the west to the east front of the house. Beyond the Firs the trees stop, to give a clear view southward from the house, but farther round we come to a Yew hedge, and then more trees, which have in front shrubs of many kinds. Among them are a splendid bush of Berberis Darwinii; the Smoke Plant, Rhus Cotinus, with its purplish sprays; a good old tree of Arbutus Unedo, which had been cut about by the snow, but is still very effective; and a pretty specimen of Acer Negundo variegata. Interspersed among the shrubs are bays with strong-growing Roses, which thrive in spite of their somewhat aggressive neighbours.

"You made good use of annuals for bedding," I suggested.

"Yes," was the answer, "formal bedding is not favoured here. Both Mr. and Mrs. Price take great interest in the gardens, and they like a more natural system of planting. I am of the same opinion myself; indeed, I do not care even for Yew hedges which have to be clipped to keep them square, for it scarcely seems a natural way to grow plants. The beds on the lawn in front of the house were originally intended for carpet bedding, but they are now filled with annuals."

Crossing the tennis lawn, which is surrounded



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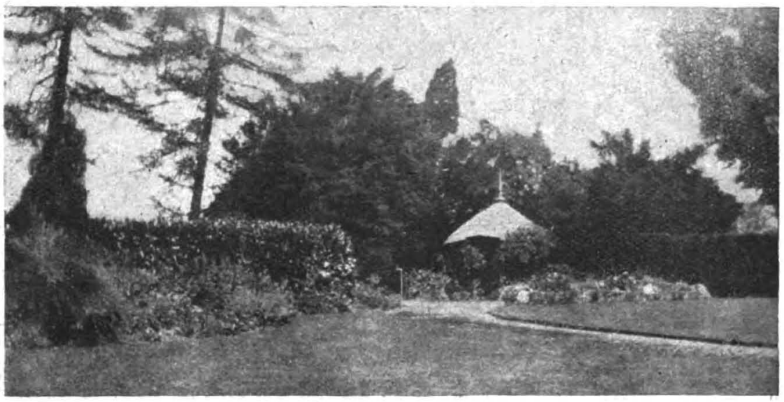
with Roses on chains and posts, we reached the back of the house, looking west. Here are some broad herbaceous borders which give good masses of colour. Planted among the perennials I noticed strong clumps of Canterbury Bells, and in other places annuals such as Godetias, Lavateras, Clarkias, and Sweet Peas.

#### OLD AND NEW ROSES.

"There is here a good half-standard of Ceanothus Veitchianus," said Mr. Reed, as we passed farther round, and came in view of the Rose garden, with a large bed in the centre, and four smaller ones round it.

"The Roses, too, are flourishing here," I observed.

"The beds were all made this year, and the varieties are mixed. Madame Edouard Herriot has been extra good; and Duchess of Wellington is not far behind it. Another that does well is Le Progrès, nankeen yellow. In the single flowers, Irish Fireflame is very satisfactory, though Irish Elegance does not do so well. Mildred Grant is an exhibition Rose, but it has made a good bedder; and one of the old Hybrid Perpetuals, Prince Camille de Rohan, gives us some rich, deep crimson flowers. Of course,



A CORNER OF THE LAWN AT THE HOLLIES.

Lady Hillingdon is greatly liked, because of its pretty orange-yellow colour; and another favourite is the old Tea Rose, Hon. Edith Gifford, which flowers very freely."

Against the house are a number of flowering shrubs, and in front of these the only bedding to be seen—Ivy Geraniums planted to give colour later in the season. Beyond this is an attractive border of Sweet Williams, which are raised from seed each year.

At this end of the lawn a weeping Ash spreads its branches in a wide circle, making a splendid natural arbour, through which sunlight dimly filters. The branches are supported by iron rods, fashioned like an umbrella. Adjoining this is a rocky recess, which, owing to its position, is admirably adapted for Ferns, these being planted liberally. All the species are natives of Britain.

Passing through the arbour we came almost at once to the first of the greenhouses—there are nine in all. This is a large structure, with gravel floor, and strongly-made iron staging, divided into three semi-circles on each side, affording scope to decorative effects.

"At present," said Mr. Reed, "we have only a few Azaleas and Geraniums here; but next spring I hope to fill it with Cinerarias, Cyclamens, Ferns, Streptocarpus, Gloxinias, and other things. In consequence of the shortage of fuel last winter there was scarcely anything here."

#### GOOD ORCHIDS FOR AMATEURS.

"You have some promising Orchids in the extension of this house," I observed, as we passed through.

"Yes; they will, I hope, make a good show later on. They are all young plants, and have been got since Mr. Price bought the place, as the greenhouses were practically empty. Lælio-Cattleya Martinetti has a good bloom. Dendrobium thyrsiflorum carried nine, and the colours were superb. Cymbidium Lowianum is a good Orchid for amateurs, as it is easy to manage, and will flower well. It has a lovely combination of colour—greenish yellow, with a crimson and yellow lip. Dendrobium chrysotoxum is another good doer, and the colour is, I think, the most beautiful I have seen—a deeper yellow than Brymerianum. This plant carried sixteen flowers on a spike."

"What temperature do you keep in winter?"

"Fifty-five degrees by night, with a rise of five to ten degrees by day."

"Some of the plants, I suppose, have not yet bloomed?"

"No; there are several to come on. Here are some good Cattleyas; and this Epidendrum radicans is another. Phaius grandifolius gives good promise. There are two species of Vanda—suavis and cœrulea—and I expect good results from them. But Cœlogyne Massangeana had half a dozen spikes of bloom; and the small collection of Cypripediums flowered well. Among the varieties are Robin Hood, nitens, aureum Actæus, Torsum, and Maudiæ. Miltonia Bleuana is coming into bloom. There have been good spikes on Renanthera Imschootiana. Pleione lagenaria, Brassia varicosa, and Cymbidium giganteum are other Orchids we have here, and there is a nice plant of Odontoglossum grande, which, in my experience, is so free-flowering that it works itself to death, and has constantly to be imported. I hope to have a few Bulbophyllums later, and then there will be a nice collection here."

"Do you have much trouble with insect pests?"

"There is always a danger, but we fumigate regularly for thrips, and soak the plants now and again with 'Abol,' and so keep them down."

On the shadier stage I was shown various Ferns—Osmunda palustris, Nephrolepis Marshalli compactum, Adiantum Veitchianum, and Todœas being the principal—and a few seedling Gloxinias to give tubers for next year.

We next visited the nearest kitchen garden (there are two), turning in to look at the houses.

In the Peach range the first house had a good show of fruit, the varieties being Peach Royal George, Nectarines Peach and Lord Napier. The next house is filled with Princess of Wales, a fine, healthy tree.

The Muscat house has both inside and outside borders, and although there had been no heat whatever, the Vines were carrying a remarkably fine lot of fruit. Madresfield Court, Muscat of Alexandria, Lady Downe's, and Alicante are the varieties; and in the next house there are Black Hamburg and Buckland's Sweetwater. Here the borders are all outside. On the staging was a good batch of Primula obconica and Cinerarias for next season.

Another cold house we visited was filled with Tomato Sutton's Satisfaction, with many trusses of shapely fruit. The Melon house had Hero of Lockinge, and some seedlings of herbaceous Calceolarias.

Outside, a bed of annuals, including Salpiglossis, Coreopsis, Clintonia pulchella, with blocks of Antirrhinums in separate colours, was an attractive feature; and we then turned our attention to the vegetables. Peas were sown extensively, there being sixteen or seventeen long rows. In reply to my question, Mr. Reed said:

#### PEAS FOR A SUCCESSION.

"For our earliest Peas we used Sutton's First of All, which we picked at the beginning of June. This is followed by Sutton's Dwarf Defiance, Improved Duke of Albany, and Invincible, and then we go on to Sutton's Maincrop and Excelsior. The latest is Latest of All. Between the rows we grow Spinach, Radishes, and other salad plants."

"You also have plenty of Lettuces?"

"A large quantity of these are required, and I make sowings every ten or fourteen days during the season. I sow where they are to grow, as I do not believe in transplanting. The chief variety is All the Year Round."

"Your winter greens look healthy, in spite of the long drought."

"One bed is Cabbage Wheeler's Imperial, the other Savoy Best of All, which I consider a very fine Savoy. The plants were put out in absolutely dry weather. Before the holes were made we watered each little space, and after planting we watered again. As a result, we did not lose a single plant."

"What are the chief varieties of Potatoes, of which I notice you grow a lot?"

"Sharpe's Express is our best early. Others are British Queen and King Edward VII. We grow more in the next garden. Altogether we plant twelve bushels of seed."

"And the Onions?"

"Improved Reading, Brown Globe, and Giant Rocca are our best, while for a good pickler we grow Improved Queen."

"Your Carrots look healthy, and promise well."

"Of these we grow three varieties—Sutton's Champion Horn, Intermediate, and Stump-rooted. The Beet is Blood-red Globe."

"How did you find the Beet and Parsnips germinate this year?"

#### USEFUL SPINACH BEET.

"Very well indeed, and there were very few failures. You might like to notice this Spinach Beet, which is a thing I would advise everyone to grow, as it is so handy. With this in the garden you are never at a loss for a bit of greenstuff, whereas the other sort runs away very quickly."

The principal path in this garden has on each side borders of herbaceous perennials and annuals. There were fine clumps of Shirley Poppies, some self-sown and others sown in spring, and Mr. Reed pointed out the difference between them, the self-sown being much earlier, and if anything finer. Other striking groups were Anchusas, Lupins, Gaillardias, and Roses (Lady Ashtown was especially fine), while in front was an edging of Nepeta Mussini. At each corner is a weeping standard Rose Hiawatha, and at the back were Apple trees. The borders were trenched last winter, and the plants divided—a necessary operation after the long period during which they had had to be neglected.

#### DROUGHT AND POTATOES.

In the second kitchen garden an object lesson was provided of the effects of drought on Potatoes. There was a good breadth of Arran Chief, which is the principal maincrop grown

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here. Part had been planted before the drought set in, and had started to grow away at once, so that, though no rain fell for many weeks, they were much sturdier and more even than those on the other part of the ground, which were planted three weeks later, when the drought was on. These were only now getting away, following the rain at the end of June.

A large bed of Drumhead Savoy, and others of spring Cabbages, were noted. Concerning these Mr. Reed remarked:

"There are two varieties, Harbinger and Flower of Spring. Harbinger is smaller, but it hearts more quickly, and is not so apt to bolt as the other."

The most noticeable thing in the frames was Cucumber Sutton's Every Day, which, in spite of there being no heat, were starting to fruit, and looked to be very good. Near by were about a hundred and fifty pots of Chrysanthemums, Singles, Japanese, and Decoratives, to give, as Mr. Reed remarked, "a bit of bloom for autumn and winter."

It is in this garden that most of the fruit is to be seen, and the prospects were explained as we walked round.

"Plums are rather poor this year, the only trees that are bearing at all well being these two Victorias. Apples are good—at least, some varieties are—and the crop will be quite an average one. Lane's Prince Albert is carrying a fine lot of fruit, and Tower of Glamis and Wellington are cropping heavily. The standards of Bramley's Seedling and Mère de Menage are also very satisfactory. You see we do not waste any space, for we have Asparagus Kale and other vegetables under the trees. Warner's King and American Mother are amongst our best, and are full of fruit. Pears are only fair."

"How about small fruits?"

"The rain came just in time to save the Strawberries. The varieties are Sir Joseph Paxton and Royal Sovereign. We have three rows of Raspberries, Superlative and Baumforth's Seedling, with Kale between the rows. The Gooseberries are a new lot, as we burnt most of the old ones because of American mildew."

"Did you escape 'big bud' on the Black Currants?"

"We did not; so we grubbed them all up, and planted a fresh lot of Boskoop Giant. They are carrying good crops, and I hope the mite will be stamped out. For Red Currants our variety is Comet—a very good sort. We have a hedge of American Blackberries, which fruits abundantly, and is much liked. There is a fine standard Quince, which is really pretty when in flower, and it gives plenty of fruit."

"What are the wall fruits?"

"The usual sorts—Pears, Plums, Peaches, and Cherries. The Peaches this year are not going to be a good crop; but the Morello Cherries are doing well, although the top branches of two of them are dying back. I hardly know how to account for it, unless it is because the roots have got into the subsoil, which is heavy clay."

W. J. CHITTENDEN.

## RAMPION.

This plant has a four-fold use: It is a herb so far as its leaves go; a salad where its root and leaves are concerned; an excellent food for rabbits; and an ornamental garden flower. Here, then, is value for money and trouble.

It is primarily a salad herb, both leaves and roots being used, uncooked, in the salad bowl. For this purpose, seeds are sown in the spring, or, indeed, at any time during the spring or summer months, and the resulting seedlings thinned out early to an inch or two apart. Later on they may be again thinned, and the drawn plants used as a salad ingredient; or fed to young rabbits, making a very suitable, tender food for them. The main attention required after that is the use of the hoe and keeping down weeds. The leaves are pulled from the plants as required, but when roots are wanted the plants are best left alone.

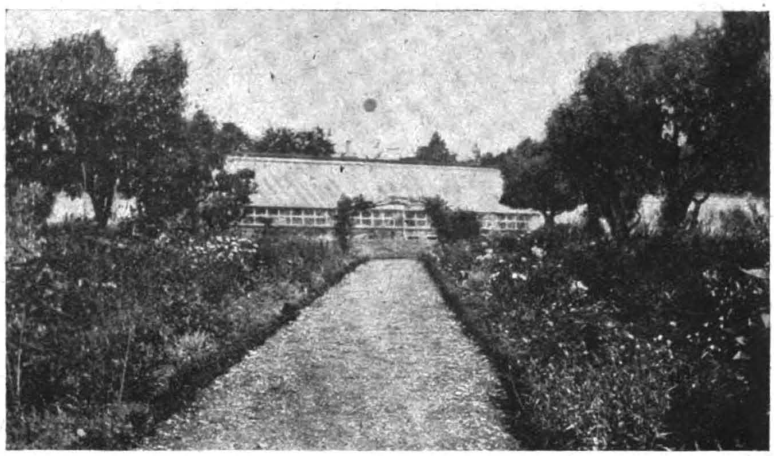
Good, rich, open garden ground gives the best results, but fresh manure should be placed at a fair depth in the soil, or not used at all. The roots, when matured, are not of great size, but are very palatable, and are useful, sliced in salads. They resemble somewhat a long Radish in habit and size.

The chief attraction of the Rampion, however, is its flowers. To secure these, the thinnings may be transplanted into nursery beds to grow on, after the manner of Canterbury Bells; or the plants, well thinned, may be left as sown until the autumn or following spring. By the autumn the plants, however treated, will have grown into fairly large clumps, which may be lifted with a good ball of roots, and transplanted into the border, where they will give a good display the following June and July.

Belonging to the Campanula family, the flowers of the Rampion are blue, bell-shaped, and are produced on long, slender stems, from two to three feet in height. The blossoms may be described as large Hair-bells (the wildlings of our British lanes), and hang gracefully and delicately upon the stem, clothing it with blooms for quite half its length.

The usefulness, ease of culture, and graceful beauty of this plant will make it a popular subject with all who give it a trial. Twopennyworth of seed will produce enough plants to fill a good-sized garden border.

H. A. DAY.



HERBACEOUS BORDERS IN THE KITCHEN GARDEN AT THE HOLLIES, BOXMOOR.

## THE RASPBERRY.

In too many private gardens the Raspberry is grown so poorly that its true value is not brought out. It is not only an exceedingly useful fruit, coming in just as the Strawberry is going out, but it is also a more reliable subject, on the whole, while it is a curious but easily explainable fact that in seasons when the Strawberry fails, more or less, the Raspberry is a good crop, and *vice versa*. Flowering somewhat later, the plants usually escape the late spring frosts that so often devastate the Strawberry beds, and the plant itself is hardier, and the fruit will also stand much more wet weather, without injury, than the other.

It is not worth while planting Raspberries on a light, dry soil, for the simple reason that in two seasons out of three, at the least, the crop would fail, or not be worth gathering. In most gardens the best place for the Raspberry bed, or quarter, is the lowest and dampest part, though, unless the plants receive a reasonable amount of sun, the fruit will not ripen properly, and will prove sour and hard.

### THE BEST VARIETIES.

One of the finest—perhaps the finest of all—Raspberries in cultivation is Superlative. When well grown and ripened the fruit of this grand variety is not only large and well coloured, but of delicious flavour also. There are several other good kinds, including Norwich Wonder, Hornet, Baumforth's Seedling, and Perfection, but none of these, in my view, equals Superlative, either in size, quality, or productiveness. The best flavoured yellow Raspberry is Guinea, which is synonymous with Yellow Superlative. The colour is deep yellow, and the growth moderate. Moncrieff Yellow is another very good variety of stronger growth.

The autumn-fruiting Raspberries, though little known, are very useful, and often produce a nice crop of fruit in September or October, but the canes must be cut down near the ground in February or early March, as they fruit on the young growth, not the old. Good kinds are the red and yellow Four Seasons (Quatre Saisons), Belle de Fontenay, November Abundance, and Surprise d'Automne.

By far the best way of growing the Raspberry, at any rate in private gardens, is not in the usual bush form, but in rows running north and south, and five or six feet apart. The growth, or canes, should be trained to a stout wire trellis, six feet or so in height, supported by stout posts—these must be charred (or tarred) at the base, to prevent decay. The plants may be placed two or three feet apart in the rows, and the canes—four or five to each plant only—be tied out evenly, and not too tightly, to the wires. The ground should be trenched to a depth of about three feet, working in plenty of half-decayed manure, and the heavier the soil is the better. If naturally light, a good dressing of lime will greatly help to consolidate it.

### THE VALUE OF MULCHING.

Especially where the soil is of a light description, but even in any case, an annual mulching with long or littery manure is almost indispensable. This may be applied at almost any time in the spring, earlier or later, according to the weather, but always before a period of drought sets in. Let it lie on the surface all the summer, and in the autumn rake off any long, strawy portions, and very lightly, or shallowly, prick the rest into the surface with a steel fork.

The old canes should be cut away as soon as possible after the fruit has been gathered, and the young growths be thinned out to four

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# THE DURRANT GARDENS AT BOURNEMOUTH.

## Interview with Mr. William Reeves.

IN view of the centenary of Bournemouth, which will be celebrated in July on a scale of great magnificence, and is expected to attract visitors from all parts of the world, an account of one of the town's most attractive features will be read with exceptional interest. A year or two ago I had an interview with Mr. J. B. Stevenson, who has charge of the beautiful central and lower pleasure gardens at Bournemouth; but on the present occasion, my visit to this most picturesque of southern watering-places was made in order to have a chat with Mr. Reeves, who is responsible for the Durrant Gardens. These form the upper portion of a chain of pleasure gardens, which reach from the Pier Approach two miles inland, the second mile being private property, belonging to Miss Durrant, and situated on her estate. It is, of course, a great boon to the residents and visitors that this lady allows her gardens, for all practical purposes, to be treated as public, with absolute freedom of access, except on one day of the year, March 1st. In fact, as Mr. Reeves informed me, Miss Durrant has continued the course which her late uncle, Mr. Durrant, of Norwich, commenced, by maintaining the gardens for the benefit of the town.

"And how long is it since the gardens were designed?" I enquired, as we arrived at the Queen's Road entrance.

"Under thirty years. I have had charge since June 9th, 1890, and my predecessor was here for upwards of five years. A great deal has been done since I came here. The upper section has all been levelled, the falls have been put in, and very many trees and shrubs have been planted. The far end of the gardens is coterminous with the Hampshire county boundary, and you will see that all along much care has been taken in order to enhance their charms as far as possible."

### Some of the Best Trees.

Some of the Best Trees.

"First of all, I think, we might note some of the trees which do so much to contribute to the beauty of the gardens by the splendour of their tints.

"Yes, in spring, summer, and autumn they are a great feature. The trees which flourish here especially are Copper Beech, Limes, Acacias, Birch, Oaks, Elms, Wellingtonias, Thuyopsis, Pines in variety, Abies Douglasii, and Acers polymorphum and atropurpureum. You will observe some fine specimens of these as we proceed. Then there are shrubs all along the sides."

"The Rhododendrons have plenty of buds."

"Particularly the hybrids. There is any quantity of peat in the soil, and, as you may imagine, Rhododendrons grow quickly. We have therefore to prune severely. Near the Rhododendrons, Deutzias (double and single), Berberises Darwinii and japonica, Privet, and Gaelder Roses do well. But we are handicapped in respect to shrubs by the shade of the trees, which drives them upwards."

### Beds in the Grass.

Beds in the Grass.

"How do you manage the bedding?"

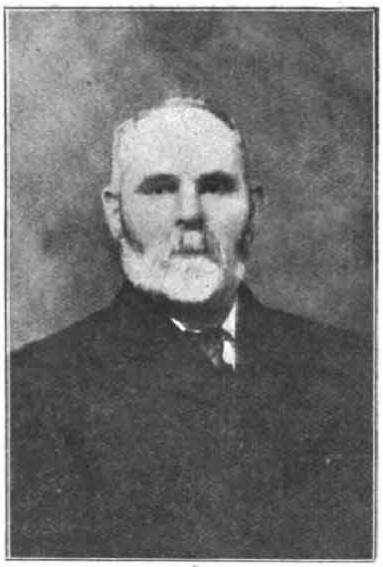
"There are beds on the grass of varying sizes at intervals. Here is one of Cactus Dahlias mixed, which flowers late in the season. The frost has compelled me to cut them by September 14th, but usually there are blooms until the end of October."

"Some shrubs thrive exceedingly under the Fir trees, do they not?"

"Undoubtedly. Buddleia globosa, for example. Cupressus macrocarpa also makes excellent growth. The Ribes do fairly well. For Aucubas the soil is not sufficiently heavy."

"What is the aspect of the gardens?"

"North by south; and, of course, the sea is at one end. Now, we come to another bed, which is usually bright from July until the end of October, with Eupatoriums purpureum in the centre, filled in with perennial Asters, and Heleniums of sorts, the whole being very effective. A third bed, which is a mass of bloom in the flowering season, contains two varieties of Solidago, Tradescantia, and Ox-eyed Daisies, edged with Montbretias, which do remarkably well, except at the ends of the gardens."



MR. W. REEVES.

"Are any of the flowers cut?"

"We cut for the church festivals. In fact, we supply St. John's, which was built by Miss Durrant, with flowers on most festival occasions. But there are always plenty of flowers between July and October."

"Can you tell me the width of the Rhododendron which, with a fine specimen of Berberis Darwinii, is so noteworthy at this point?"

"It is about twenty-five feet through, and it was planted about twenty-five years ago, the same time as the Berberis."

"How far does the estate extend?" I asked, as we approached two excellent tennis-lawns.

"Three miles through the valley, the portion outside the gardens being, of course, in Dorsetshire. The two tennis sections here, and two courts further on, are used by two private clubs, composed of residents on both sides of the estate."

"Does the stream run right through the gardens?"

"Yes, all the way. The rustic bridges in several places, with the Beeches draping them, tend, I think, to heighten the natural charms. It was for this purpose that they were added, and also the falls at intervals, which break the monotony."

"And materially increase the effect. You have some fine Bamboos near the water-wheel."

"They do remarkably well in that position. The varieties are metake, and nigra. We cut them back when necessary, and use the tops for brooms. They make the best of brooms. One of these will last longer than three Birch brooms. The canes are used for staking."

"Then you have a fountain?"

"You should see the fountain in winter when there is a hard frost. Seventeen years ago we had a frost which lasted for three weeks, when it was all frozen in strange figures and animals. The Rhododendrons and deciduous trees form a picturesque background, while the centre of the fountain is filled up with Bulrush, Irises, and Bog Beans, so that at all seasons of the year it is very pretty."

### Notable Shrubs.

"Hollies do very well," continued Mr. Reeves, as we pursued our way, "and by the banks of the stream, as you can judge for yourself, the Lombardy Poplars. Box thrives, also Spiræas in variety, Veronica Traversii (the hardiest), Escallonia (the small flowering), and the Thorns (red, white, and pink). Near the second tennis-court are some of the best hybrid Rhododendrons, of glowing and delicate colours, red to scarlet, and pink to white. Other flourishing shrubs in this vicinity include Euonymus, Andromedas, Shamrock, Golden Elders, Laburnum, Snowy Mespilus, Cotoneasters, and Philadelphus."

"I suppose you have to cut back a good many of the shrubs?"

"Directly they become unwieldy, I cut them back, and get them into growth again. That would apply to numerous varieties. We are just approaching the only formal bedding in the gardens, but before we reach it, you may like to note the old-fashioned Roses, not named, which flower all through the summer, and show up nicely."

### The Formal Bedding.

"How many beds are there in the formal scheme?"

"Seven, all round. In spring I use, for one of them, double Arabis and Aubrietia purpurea, and in summer, Asters and Stocks mixed. They do better mixed than unmixed, because, as the Stocks, which are the Giant Ten-week variety, go off, the Asters come on. The latter are Ostrich Plume, than which nothing is more effective to make a show. It is not stiff, and is very light. In another of the seven beds are mixed Primroses for spring, and Stocks and Phlox to follow; while in a third, Wallflowers

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(Golden Monarch) and Myosotis (Royal Blue) are succeeded by annuals, which I have not yet selected. In the fourth bed, Wallflowers (Vulcan) are edged with yellow Polyanthus; in the fifth, gold and silver lace Polyanthus are edged with white Primroses; in the sixth there is Myosotis Royal Blue in the centre, edged with white Daisies; in the seventh, Alpine Phlox subulata, edged with Aubrietias. Bougainvilleas form a great pink mass with purple edging. In all these, annuals, varying each season, follow; but one particular bed I often devote to Verbenas."

Clumps of Annuals.

"You must put in a great many annuals?"

"I put in between five and six hundred clumps every year, all grown from seed."

"It would be interesting to know which you consider the best?"

"Aquilegias (hybrids), Coreopsis, Candytuft, Canterbury Bells, Catchfly (one of the Silenes), Clarkia, Collinsia (which does well under shade, white and bicolor), Eschscholtzias (which want the full force of the sun), Godetias and Larkspurs both of which make a good show), Linums in variety, Marigolds (for clumps in the background, Mimulus (for sunny situations), Mesembryanthemums (also in sunny quarters), Phlox Drummondi and grandiflora, Rudbeckia, Salpiglossis, Saponarias, Scabious, Venus's Looking-glass (a small, purply-blue flower), Viscaria cardinalis (very showy), annual Chrysanthemums, Cyanus, Gaillardias, Jacobæa (American Groundsel, which suits damp soil), Lavateras which are good for background, Bartonia and Nigella (both of these want a good deal of sun), and Eutca viscida (a lovely blue). I have tried to grow Salvias from seed, but they did not come in flower early enough."

How the Seed is Brought On.

"Have you any particular principle guiding you in the choice of varieties?"

"They are chosen with the view of mixing colours harmoniously. Now I will show you how I bring on my seed."

"You have no glass?"

"None whatever. Everything is sown out of doors, and all the plants are grown from packets of seeds. I sow my seed the first or second week in April. I have a depth of eighteen inches to two feet, of raw manure, well trodden down, so that it is firm, and then the natural soil is laid on four inches thick, and the seeds sown almost directly the ground is prepared, in order that they may get the full benefit of the heat. This applies to the tender annuals which are sown here for the seven beds. They are kept here until they are large enough, about three inches high, to put in the beds after the spring bedding has been taken up."

Don't Coddle Zinnias.

"This is, in fact, your frame ground?"

"Well, I make it answer that purpose as best it can, though there is not even protection from dogs and cats, and the entire space is only seven yards square. Before we leave the annuals, you might add to your list, Petunia grandiflora and giant Zinnias, from the latter of which I get beautiful flowers, the plants coming up steadily and strong, and, in my opinion, doing better out of doors. Zinnias, as a rule, suffer from coddling. Then there is Nemesia strumosa and pansy-flowering and white Asters."

Perennials for Borders.

"Perhaps you can tell me the names of the perennials which do best in the borders under shrubs and trees?"

"Achilleas, Aconites, Alyssum compacta and saxatile, Anemone japonica, Campanulas in variety, Delphiniums (of which we have a very good stock), Doronicums, Funkias, Lychnis, the old red Pæonies (which make showy clumps), Potentillas, Pyrethrums, Saxifrages in variety, Statice latifolia, Sweet Williams, Tritomas, Alstrœmerias, Hemerocallis, Harpaliums, Lupins (tree and dwarf), and Chrysanthemum maximum (of which we have eight varieties, dwarf and tall). I have a seedling of my own from which I get flowers five and a half inches across. They are white and most useful for church decoration. I sometimes grow Chelone barbata, but I have to keep on sowing it because I cannot winter it. By the way, before we dismiss perennials, I may say that the large, round bed near one of the little store houses, consists entirely of perennial Stocks, and is very attractive."

Herbaceous Plants for Blooms.

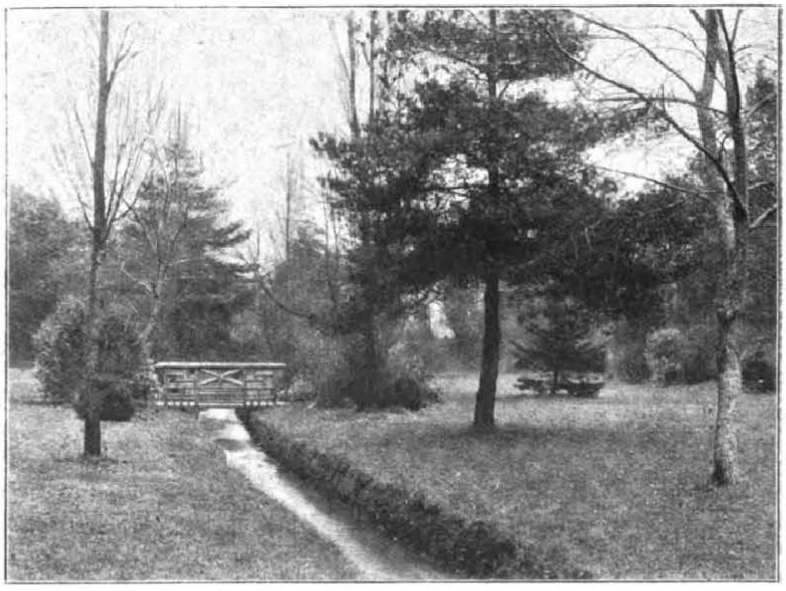
"Then, there are the herbaceous plants?"

"These are chiefly Agrostemmas, the Evening Primrose, Anchusas, Geums, Inulas, Iris, Erigerons, Dielytras, Lobelias, Jacob's Ladder, Polygonum, Oriental Poppies, and Foxgloves. I am trying a few plants of Crinum and Agapanthus in the borders, and they have stood out two winters without injury. With regard to the flowers, whether in beds or borders, the main object is to make a beautiful show of bloom, and gives us a quantity of beautiful blooms, similar to those grown indoors. I attribute their success to the fact that there is a quantity of granite here, because in another place, where there is no granite, the Clerodendrons do not do nearly so well. Just at this point in the upper part of the gardens, which people like best in summer, I am making a little nursery to grow a few more of the tender plants. This is the place where I start my Mrs. Sinkins Pinks, which I afterwards put out in the borders."

A Panel of Retinospora.

"To return to the shrubs, I notice that you have Chamærops Fortunei out of doors."

"Yes, that is one of the shrubs that does very well out of doors, and amongst others which I have not hitherto mentioned are Osmanthus, Magnolia Soulangeana, Pernettyas, Daphnes, Yuccas, Diplopappus, Paulownias, Kalmias, Salisburias, Prunus Pissardi, Pyrus in variety, Garrya elliptica, Halesia tetraptera, Forsythia suspensa, Olearia Haasti, and Choisya ternata."



THE RIPPLING STREAM IN THE DURRANT GARDENS, BOURNEMOUTH.

there is always a lovely setting in the shape of shrubs and trees."

The Best Rhododendrons.

"We might mention some more of the shrubs. For example, you have not given me the names of some of your Rhododendrons."

"Here are some of the best: album grandiflora and triumphans, Alarm, Baroness Lionel Rothschild, Baron Schroder, Blandyanum, B. W. Elliott, Caractacus, concessum, Cynthia, Everestianum, Fleur de Marie, Frederick Waterer, Grand Arab, the Hon. Mrs. Mercer Henderson, Joseph Whitworth, Kate Waterer, Lady Eleanor Cathcart, Limbatum, Madame Carvalho, Michael Waterer, Minnie, Mrs. John Penn, Mrs. John Waterer, Mrs. John Clutton, Old Port, Princess Christian, Princess of Wales, Queen, Sydney Herbert, Strategist, Vandyke, and Princess Mary of Cambridge."

Clerodendrons and Granite.

"Do the Rhododendrons give you much trouble?"

"All we do to them is to thin them. Those in the largest of the beds were twelve feet high, and the bed when in flower was a perfect blaze of colour. With regard to other shrubs, one of the most ornamental is Podocarpus japonica. Clerodendron trichotomum, with a nearly white flower,

"What particular shrubs are used in the large panel beds near the Tower?"

"Retinospora, Juniperus, and Cupressus Lawsoniana Allumii, which vary from two feet to twenty feet high. Round the Tower are the common Retinospora and other varieties, with Cryptomeria elegans. All these shrubs were shifted to their present position without any loss. They only want to be kept together, to preserve them. Close to the Tower is a fine plant of Gunnera scabra, which we protect with bracken Ferns, because the foliage is delicate. Gum Cistus also does well in this position."

The Experience of Mr. Reeves.

Strolling outside the gardens, where we were in the borough of Poole, Mr. Reeves pointed out a magnificent pond with quantities of roach, dace, and other fish, one of the banks being clothed with Bamboos, and the island in the centre adorned with Rhododendrons.

"But now," he said, "we are going beyond our sphere, and perhaps you may like to ask me some further questions about the gardens?"

"I should be glad to know what your previous experience was before you came here?"

"For sixteen years I was in charge of North Leigh Gardens. At that time I did a good deal of showing, winning a number of first prizes for hothouse and hardy fruit, foliage plants and

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vegetables. I have always taken a great interest in all branches of gardening, and I have made a great many experiments with different varieties of Peas in order to ascertain their early cropping qualities and the weight obtained. I have been on the committee of the Bournemouth Horticultural Society for twenty-three years, and am treasurer of the Bournemouth Gardeners' Association. In September, 1906, I was awarded a certificate of merit for a collection of perennial plants in these gardens."

**Appreciation of the Public.**

"What is the width of your borders?"

"From twelve to fifteen feet. One of the most essential points, as you can well understand, is to keep the vast quantity of grass in order. The average width of the pleasure grounds is fifty yards. Of course, we have all we want in the way of useful appliances, which we turn to every possible account. The gardens at the outset were designed and carried out by the late Mr. T. J. Hankinson. They are open night and day, and it is due to visitors to say that we lose very greatly value the privilege of being able to frequent Miss Durrant's gardens."

Alfred Wilcox.

In next week's interview, Mr. A. G. Gentle, of The Gardens, Little Gaddesden, a winner of over two hundred first prizes, tells "How to Grow the Best Vegetables."

The Chinese Primrose.

THAT the Chinese Primrose (Primula sinensis) is one of the finest and most reliable of all winter-flowering plants is generally acknowledged. It is readily, and best, raised from seed, and is usually treated as a half-hardy annual; that is, the seed is sown in the spring to afford plants for flowering the following winter. It thrives under cool treatment throughout, and will grow and bloom fairly well in a house from which the frost is well excluded, though it succeeds much better in a temperature of forty to forty-five degrees at night, with a moderate rise during the daytime. There is now a considerable variety in colour also with flowers of the purest white; and Holborn Queen, a very beautiful variety, with Fern-shaped foliage. We also noticed a small batch of the old alba magnifica, a beautiful white kind, with large, deeply-fringed blossoms. The Giant Crimson is a grand thing, with very large blossoms of a fine rosy-crimson hue, and a strong habit of growth, and Crimson King is another excellent variety, with rather smaller but well-coloured flowers, produced in wonderful profusion. Holborn Carmine is also very free-flowering, and of a pleasing and distinct shade of colour. The Giant Magenta is another very strong-growing kind, with large and well-formed blossoms of a rosy-magenta hue, and the Giant Salmon is equally fine, with enormous blossoms of a very pretty shade. Holborn Coral is another giant variety, with fine blossoms of a pinkish-red or coral colour; Holborn Pink has large blossoms of the colour indicated; Orange King is of a pleasing salmony-pink hue; and Duchess is an excellent variety, having white flowers with a pink eye. Other notable single-flowered varieties are Vermilion, a nice flower of a very rich colour; Rose Queen, with charming blossoms of a blush hue; and Holborn Ruby, a Fern-leaved variety of a very rich colour.

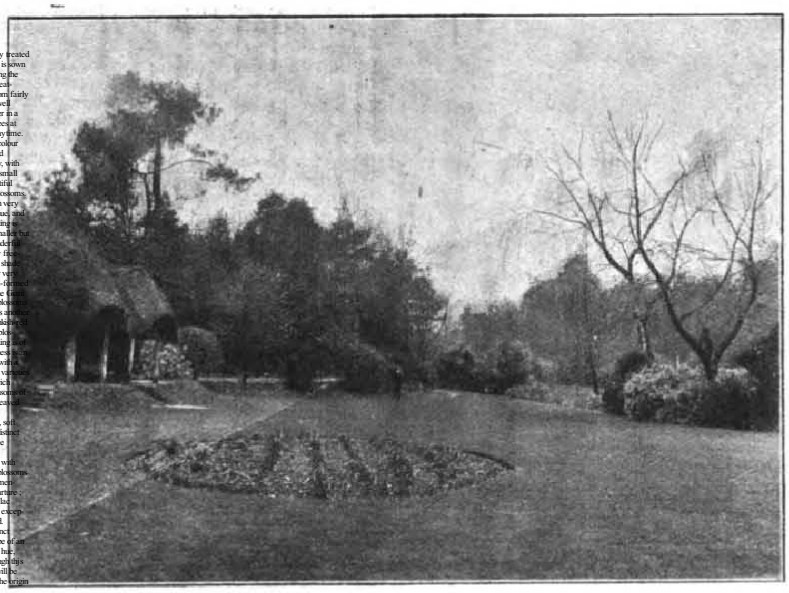
The flowers of True Blue are of a clear, soft blue, not very large, but of an entirely distinct colour, and the foliage is also good, while Light Blue is of a pleasing lavender hue. Holborn Crested, a quite unique variety, with crested foliage and beautifully crested blossoms of a rosy-lilac hue, ought to have been mentioned before, as being quite a new departure; and Holborn Rose (Fern-leaved), and Lilac Queen, a very vigorous variety bearing exceptionally fine trusses, must not be omitted.

A variety called "Oak-leaf" is very distinct and curious, the leaves being of the shape of an Oak-leaved Geranium, and of a reddish hue, while the flowers are salmon-pink. Though this appears to be rather a weak grower, it will be useful for hybridising, and may prove the origin of quite a new race.

Of the double-flowered varieties, the Double Crimson is one of the best, being of a vigorous habit, and producing in great profusion blossoms of the richest crimson, as bright as any Geranium. The Double Scarlet is another strong grower, with well-coloured flowers, and Prince of Wales has blooms of a pretty salmon-pink hue, with a splendid habit of growth. Princess of Wales is a double white, the flowers being distinctly splashed with bright scarlet—a very taking variety. Snowflake is of a blush-white hue, with fine blooms and trusses; and Aurora has beautiful flowers of a light or blush-pink colour. All these double-flowered kinds are excellent for cutting, as they do not drop the blossoms when cut, as the singles do.

The Stellata class was also well represented, the plants being of a sturdy, vigorous habit, with tall, pyramidal trusses of very pretty, if rather small, blossoms. This included the white, pink, orange, salmon, lilac, crimson and blue forms, all equally fine and of the colours stated.

A noticeable feature was the remarkably distinct and even character of the different batches of plants. Of course, a certain amount of variation in colour, or rather tint, in seedling plants must always be looked for, but this was so slight as to be scarcely noticeable. Florist.



A Scene in the Durrant Gardens, Bournemouth.

## GARDENING EXPERIENCES.

**A free subscription for one year (value 6s. 6d.) will be given each week for the most interesting and useful contribution to this page. The contribution must be original, and should, if possible, be descriptive of the writer's gardening practice.**

**The prizewinner this week is "Tarley."**

### ASPARAGUS ON RAISED BEDS.

ASPARAGUS, one of the most profitable of vegetables, may be grown to advantage both on heavy and light soil, but on very heavy soil, raised beds are preferable, as it is a subject which does not care for too much moisture at the roots, especially in the winter. The following note may be of advantage to those who possess raised beds, and who, like myself, desire to make a little profit out of their garden, as well as pleasure. Commencing on the beds in November, I prefer to rake the beds level, filling-up the trenches with the soil I rake off, thus preventing frost from getting into the sides of the beds, which frequently happens when they are made up in November. My next step is to give a dressing of salt, and then a good dressing of short manure, to be washed into the beds with the winter rains. Having done this, I drive in stakes to mark the place where the trenches are, and so leave for the winter.

In March, lightly prick over the beds with a fork, to loosen the surface and break all clots; then throw open the trenches again, putting the soil out of the trenches back on the beds on top of the manure. In doing this you are burying the roots of the Asparagus deeper, and when you come to cut the Asparagus at the latter end of April, you can cut it as soon as it is through

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# Obituary.

MANY gardeners will learn with regret that Mr. JOHN RICHARDS, gr. to Baron Lionel de Rothschild, Gunnersbury Park, Acton, died at Gunnersbury on July 18, at the age of 51, after a severe and wasting illness of some three months' duration. Mr. Richards commenced the profession of a gardener early in life by engaging himself to his uncle, who had a small nursery at Hatton, in Shropshire, and grew plants for market. From Hatton he went to the Botanic Gardens at Birmingham, and, after remaining there for a time, went next to Trentham Gardens, Staffordshire, for a period of nearly three years. On leaving Trentham he went to Shrubland Park, and was plant foreman there for two years, and then filled the post of plant foreman at Woburn Abbey, Beds, the seat of the Duke of Bedford, where he remained for four years. From Woburn he went to Grimston Park, Tadcaster, as gardener to Lord Londesborough, about the year 1854, and had the charge of the Grimston Gardens for the space of fourteen years. While there he made a great reputation as a cultivator and exhibitor of stove and greenhouse plants and Orchids at the York and other shows in the North of England. In 1868 Mr. Richards left Grimston, and took charge of the gardens at Stoke Park, Slough, the residence of E. J. Coleman, Esq., and after remaining there for the space of sixteen months was offered and accepted the charge of the gardens at Gunnersbury Park, where he remained till his death—a period of nearly seven years. Under his care the gardens at Gunnersbury maintained their old reputation, and at a meeting of the Royal Horticultural Society about three years ago Mr. Richards was awarded the Lindley Medal for some superb examples of Odontoglossum vexillarium.

He was buried at the cemetery, Ealing, on July 21, which is immediately contiguous to Ealing Park, formerly the residence of Mr. Lawrence, of such fame as a cultivator and exhibitor of plants. *R. D.*

**RICHARDS John.**

**Effects under £200.**

19 November. Administration of the effects of John Richards late of the Strand in the Town of Swansea in the County of **Glamorgan** Sawyer who died 1 April 1865 at the Strand left unadministered by Mary Richards Widow the Relict was granted at **Carmarthen** to Thomas Richards of St. David's-place Swansea Sawyer the Son and one of the Next of Kin. **Former Grant** at Carmarthen June 1865.

**RICHARDS John.**

**Effects under £300.**

6 December. Administration of the effects of John Richards late of the Gardens Gunnersbury Park in the County of **Middlesex** Head Gardener to Baron Rothschild who died 18 July 1877 at the Gardens was granted at the **Principal Registry** to Jane Richards of the Gardens Widow the Relict.

**RICHARDS John Wheadon.**

**Effects under £450.**

Administration (with will) of Goods unadministered passed at the Principal Registry August 1881.

9 October. The Will of John Wheadon Richards late of 12 Butcher-row Ratcliffe in the County of **Middlesex** who died 30 August 1877 at 12 Butcher-row was proved at the **Principal Registry** by Elizabeth Richards of 12 Butcher-row Widow the Relict the sole Executrix.

**RICHARDS Joseph.**

**Effects under £200.**

21 March. The Will of Joseph Richards late of West Bromwich in the County of **Stafford** Gentleman who died 22 February 1877 at Colley-street West Bromwich was proved at **Lichfield** by John Richards of Dudley in the County of Worcester Butcher the Son one of the Executors.

**RICHARDS Joseph.**

**Effects under £100.**

11 April. Administration of the effects of Joseph Richards late of 416 Mile-End-road in the County of **Middlesex** Widower who died 10 July 1876 at 416 Mile-End-road was granted at the **Principal Registry** to Susan Lydia Richards of 416 Mile-End-road Spinster the Daughter and one of the Next of Kin.

**RICHARDS Joseph Smith.**

**Effects under £200.**

8 March. The Will of Joseph Smith Richards late of Worthington in the County of **Leicester** Farmer who died 2 December 1876 at Worthington was proved at **Leicester** by Robert Richards the Son and John Shakespeare both of Burton-on-Trent in the County of Stafford Butchers the Executors.

**RICHARDS Lewis.**

**Effects under £300.**

13 October. Administration of the effects of Lewis Richards late of Gwrhay in the Parish of Mynyddyslwyne in the County of **Monmouth** who died 18 January 1852 at Gwrhay left unadministered by Ann Richards Widow the Relict was granted at **Llandaff** to Richard Richards of Argoed in the said County Colliery Manager the Son and only Next of Kin. **Former Grant** Consistory Court of Llandaff December 1853.

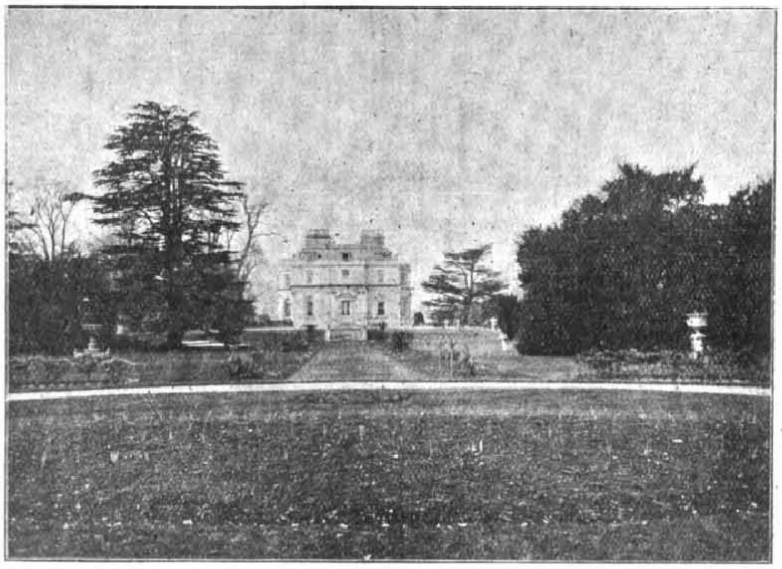
**RICHARDS Llewelyn.**

**Effects under £200.**

16 April. The Will of Llewelyn Richards late of Llantrissant in the County of **Glamorgan** who died 9 December 1876 at Llantrissant was proved at **Llandaff** by Daniel Richards of near Heolpenmaen Llantrissant Labourer the Son the sole Executor.

April 24, 1909.
65
GARDEN LIFE.
crjp of Tomatoes was due to an empty basket brought from an infected garden ; a dirty trowel may introduce eelworms into the greenhouse, and so lead to the destruction of Melons, Cucumbers, or other plants in it; soil adhering to the boots may carry disease germs from one part of the grounds to another. Obviously, it is impossible to guard against every chance of infection, but the gardener who takes the most precautions is certain in the long run to meet with the fewest disasters.
Plants for Growing under Trees.
April 15th.â€"In a list of plants suitable for growing under trees, I notice several which are not often seen in gardens. One of them is Waldsteinia fragrarioides, a North American species, sometimes called the Barren Strawberry. That name will give some idea of its appearance and habit of growth. Another is Horminium pyrenaicum, which bears purple flowers in summer. It also is dwarf, eight or ten inches in height. There is a variety, album, with white flowers. Symphytum caucasicum and S. tauricum are taller, about three feet. They belong to the Borage family, and are not particularly attractive. Astrantia major is more ornamental, its pink flowers being borne in large umbels. But though it may grow in the shade, it rarely thrives except in moist soil, and that is not always easy to find under trees. One Campanula is mentioned, a native species, C. latifolia (or macrantha), and its variety, alba. Then there are two Euphorbias—E. cyparissias (the Cypress Spurge) and E. pilosa (which has greenish-yellow flowers). The rest of the plants in the list are more common. They include the Hypericums, the Vincas, and so forth. It will be seen that the choice is not great. The plants that flower in shade are few, and of them a large proportion are not remarkably attractive. There are many, it is true, that do grow naturally under trees, but they nearly all flower before the foliage appears.
A Dressing for Lawns.
April 16th.â€"The following dressing for lawns is recommended by the Royal Horticultural Society: for every two square yards, one ounce nitrate of soda, one ounce sulphate of ammonia, and two ounces bonemeal, to be applied, in showery weather, early in April, again in the middle of June, and a third time in the middle of August. It should be distributed as evenly as possible, and, if the weather happens to be dry, should be watered in.
Picturesque Tree Stumps.
April 17th.â€"It is always sad when for any reason an old tree has to be cut down, but the gap may be filled to some extent if part of the trunk is left, and creepers are trained up it. The effect is often very beautiful and very picturesque. In such cases, only sufficient roots to hold the trunk erect are wanted, and there will be plenty of them deep in the ground. All those near the surface may be removed, so that it is not difficult to make a bed of good soil for planting the creepers in. H. C. Davidson.
The Gardens at Canons Park*
Edgware.
INTERVIEW WITH MR. ARTHUR ROBBINS.
LESS than two centuries ago, Canons Park was one of the most famous seats in England. It was then the residence of the Duke of Chandos, who is said to have expended from two to three hundred thousand pounds upon the erection of the mansion (built from designs by three celebrated architects of the day) and improvements in the park. Standing on a terrace several hundred feet above sea-level, at the end of a long and spacious avenue of trees, and placed diagonally, it gave, at a distance, an appearance of prodigious extent. Unfortunately, when the Duke died, the estate was found to be so seriously encumbered that, failing a purchaser, the magnificent pile was destroyed, and portions of it scattered over the country. The residence of Mr. Arthur Philip du Cros, M.P., by whose courtesy I visited the gardens at Canons Park and the demesne still includes a splendid piece of water, seven acres in extent, with the original fishing temple. Passing the two lodges, which are now comfortable private houses, at the entrance from the London road, I proceeded up a charming drive to Canons. This drive is about three-quarters of a mile in length, with fine specimens, on either side, of Wellingtonias, Cedars, Araucarias, and Cypress. To the left, near the pleasure grounds, Mr. Robbins, the head gardener, pointed out a spinny, half a mile in length, with a gravel path in the centre. Later in the year, the walk, which leads to Whitchurch—rich in memories of Handel, who lived in the village for three years—is carpeted on each side with thousands of Bluebells. Much, indeed, might be written of the past history of Canons and its interesting surroundings, but, here, it is enough to say that the present lessee has skilfully preserved the last month, was erected on a site near the historic mansion, and is sufficiently handsome and commodious Outlying portions of the park have been studded with modern villas, but the integral portion of it is quite unspoiled, and invested it with modern features at once beautiful and appropriate. The first part of the pleasure grounds which claimed my attention was the terrace bedding on the north-east side, facing the famous traditions of the place,

Mr. Arthur Robbins.



Canons Park, Edgware.

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lake with a tennis-lawn intervening, and golf links on five acres beyond.

**The Terrace Bedding.**

"For spring," said Mr. Robbins, "we use in these beds, with the marble fountain in the centre, Wallflowers (Blood-red and Cloth of Gold), the edging being Myosotis (Sutton's Victoria). In summer the beds are occupied with Geraniums Paul Crampel, edged with Little Dandy. The idea is to get a mass of one colour."

"And the stone vases on pedestals at the side?"

"We make their contents correspond with the flowers in the beds. The value of brightness is always kept in view, and, as you see, the two beds of flowering shrubs are ornamented in front with yellow Crocuses. The shrubs include Olearias (Haastii), golden Elders, Lilacs, Berberis in variety, gold and silver Hollies, Prunus Pissardi, Veronicas, Cotoneasters, and tall-growing Fuchsias. The golden Elders require a good deal of cutting, but their foliage in the summer is very effective. Then, below are four beds planted with yellow Gorse and high. The small yellow flowers make a clump attractive. Two corresponding beds consist partly of evergreen and partly of flowering shrubs, such as Ribes, Scarlet Thorns, Syringas, Laurustinus, Deutzia gracilis, standard Almonds, Laburnums, and Weigelas, some having flowers above and others below."

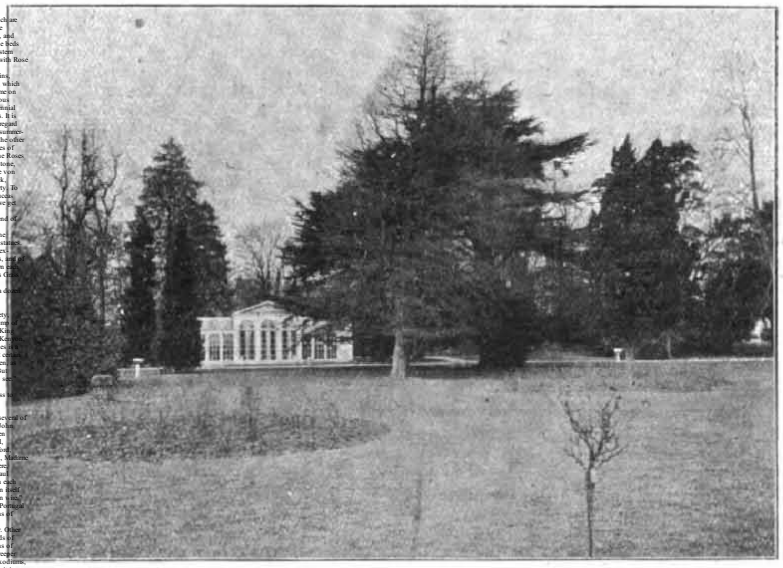
**Ribbon Borders.**

"There are more flower borders on the other side of the mansion?"

"The ribbon border at the side under the Holly hedge is spring-bedded with Wallflowers and Myosotis, as on the terrace; but in summer the Geraniums used for massing are West Brighton Gem and Harry Hieover. The other ribbon border facing the library windows has also Wallflowers and Myosotis in spring, but Paul Crampel Geraniums in summer, the edging being Harry Hieover. With its background of evergreen shrubs, this is a strong border in summer."

"You have some fine Cedars on the lawns?"

"Yes, Cedars, Horse Chestnuts, Irish Yews, and Elms do remarkably well here. So do Hollies."



THE CONSERVATORY AT CANONS PARK, EDGWARE.

"And the standard Roses along the drive leading to the front entrance from the Stanmore side of the park?"

"They flower well and freely, though some of them are a dozen years old. The varieties include Mrs. W. J. Grant, Ulrich Brunner, Viscountess Folkestone, La France, and Gloire de Dijon. We plant the little beds round the standard Roses, in spring, with Crocuses and Snowdrops, and in the summer with blue Lobelias."

**Rose Walk and Statue Lawn.**

Noting a number of vases, some of which are filled in summer with Geranium Madame Crousse trailing over, or Henry Jacoby, and others with flowers depending upon the beds nearest to them, we proceeded to the eastern side, past striking herbaceous borders with Rose standards on each side.

"For the spring," continued Mr. Robbins, "these borders are almost full of bulbs, which we do not touch, but allow them to come on as they like. In the summer the herbaceous plants include such as Helianthus, perennial Asters, etc., and we fill up with annuals. It is altogether a mixed border and without regard to colour Presently, we shall plant out summer-flowering Salvias, Stocks, Asters, and the other annuals, and about half a dozen varieties of autumn-flowering Chrysanthemums. The Roses include G. L. Paul, Viscountess Folkestone, Mrs. W. J. Grant, Celine Forestier, Perle von Godesberg, Richmond, Duchess of Teck, Catherine Mermet, The Bride, and Liberty. To break the borders, several clumps of Yuccas have been introduced, and from these we get lovely long spikes of flower."

"What do you call the bedding at the end of the walk?"

"That portion of the gardens is called the 'Statue Lawn,' owing to the number of statues. Here, in summer, the bedding consists exclusively of Begonias of mixed colours, and of Wallflowers and Myosotis in spring. On each side of the statues is a clump of Pampas Grass with twenty to thirty spikes, and at the boundary, overlooking the deer park, a dozen small clumps of Sweet Peas."

"Of one variety?"

"Yes, each clump is limited to one variety, though there may be more than one clump of each. We use, for these, John Ingman, King Edward VII., Etta Dyke, the Hon. Mrs. Kenyon, and Dorothy Tennant. Round the statues is a circle of mixed Rhododendrons, and at certain periods of the year this part of the garden, as seen from the front door, is very gay. But you have still the conservatory lawn to see."

**A Notable Conservatory.**

"You must have a large quantity of grass to mow?"

"About seven acres. Here are four large Rose beds, mixed varieties, including several of the varieties mentioned, and also Mrs. John Laing, Marchioness of Downshire, Helen Verdier, Duchess of Vallombrosa, Beryl, Margaret Dickson, Mrs. Sharman Crawford, Alphonse Soupert, Duke of Edinburgh, Madame Gabriel Luizet, Her Majesty, Abel Carriere, Dupuy Jamain, Captain Christy, and Paul Neron. There are standard Rose trees on each side of the gravel walk, and on the lawn itself is a bed of Crimson Ramblers trained on wire."

"Do you give much attention to your Portugal Laurels, so as to keep the fine specimens of rounds and half-circles in shape?"

"All we do is to slightly cut them over. Other features of this lawn include several beds of Rhododendrons, two or three specimens of Taxodium distichum, and a Virginia Creeper which has gone right up one of the Taxodiums, and looks very remarkable. As you see, it is a very old creeper, with a very thick stem, and quite a curiosity."

"The conservatory is not a modern building, though lofty and well ventilated?"

"No, it is between ninety and a hundred years old, and some of the contents are unusual. There are two figures on each side, and in the centre a marble fountain containing gold-fish, while in the recess is a cage of birds, the walls of the latter being covered from top to bottom with Tradescantia. As to other features, there are Kentia and Phœnix Palms, Aspidistras variegata, Ferns in variety, Smilax grown at both ends on strings, and several hanging baskets of Asparagus Sprengeri. On the back wall, and covering the roof, is Bougainvillea spectabilis, Plumbago capensis, Roses (Niphetos, The Bridesmaid, Madame Lambard, Ard's Rover, and Catherine Mermet, the three last growing from boxes below up to the roof); and, as you may observe, there is no staging in the conservatory, all the plants being on the ground, with a walk all round the centre groups."

**Fruit on the Walls.**

The kitchen garden has a nice approach through an Apple orchard on one side, and a flower border on the other.

"The Apples in the orchard," said Mr. Robbins, "are all standards, and chiefly Blenheim Orange, Cox's Orange Pippin, Sturmer Pippin,

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Boston Russet, and Golden Noble. In the border are plants which we use for cutting, such as Phlox, Michaelmas Daisies, Asperula, and Sweet Peas, of which there are several clumps sown behind."

"What is the height of your kitchen garden walls?"

"Eleven feet, all round. The garden faces south, and we reserve it exclusively for fruit and vegetables. The wall fruit includes Peaches—Hale's Early, Early Alfred, Amsden June, Goshawk, Early Rivers, Stirling Castle, Bellegarde and Alexandra Noblesse. Apricots are principally Moor Park. They usually do well, at any rate on one wall, where the trees were only planted two or three years ago."

"I notice, on another wall, Gooseberries on wires."

"Yes; we have plenty of others on bushes, but they are much easier to handle on the walls, and also to net. The varieties embrace Leader, Snowball, Wilmot's Early, Champagne Rose, Pitmaston Greengage, Langley Gage, Langley Beauty, Red Warrington, Champagne Yellow, and Champagne White. The other half of the wall is chiefly covered with Victoria Plums, the trees being usually very prolific, owing to the south aspect. On the north wall, as well as Morello Cherries, we train Red Currants on the pillars. They have been there for many years, and we get a very fair crop of fruit. Pears are grown on the west wall, the principal varieties being Jargonelle, Williams's Bon Chretien, and Beurre Superfin."

### Strawberries and Peas.

"Are the pyramid Apples on each side of the walk old trees?"

"Some are very old, between twenty and thirty years—but they fruit. Then we have a quantity of Red and Black Currants, and Gooseberries grown as bushes. The Red Currants are very old, and the name unknown, but the crops are remarkably good, and also the size and flavour. Raspberries (Superlative) do well."

"How long do you keep your Strawberry plants?"

"Only two years, for they are of no use afterwards. The Royal Sovereigns for early use I destroy after the first year. On the south border, the other varieties are Gunton Park, Prince of Wales, and British Queen. We grow a great quantity of Peas, including Sutton's Paris, Green Gem, Reading Wonder, Little Marvel, Excelsior, World's Record, May Queen, Centenary Marrowfat, Prize Warrior, King Edward, Duke of Albany, Nonsuch, Best of All, Satisfaction, Royal Jubilee, Windsor Castle, Selected Gladstone, Latest of All, and Late Queen. As to other vegetables, we try a good many varieties of Potatoes, among the best being Ninety-fold, Harbinger, May Queen, Ringleader, Sir Llewelyn, Windsor Castle, Red Kidney, White City, Scottish Triumph, and Up-to-Date."

"You seem to have a quantity of Celery?"

"We plant in single rows, because it is handier for tying and earthing-up. There is a space of nine inches between the sticks. The varieties are Sutton's Solid White, Veitch's Early Red, and Leicester Red. We begin to cut Asparagus the last week in April, or early in May, according to the season. Now there remain the glasshouses, which are all very compactly arranged in one corner of the gardens."

### Grapes for Seven Months.

Starting with the Vineries, we found them showing flower in a promising manner, and I asked the names of the varieties.

"Black Hamburgh, Foster's Seedling, and Madresfield Court. The latter splits with me, and I find it difficult to cultivate. It is a good setter, with a nice flavour. The borders in the Vineries are all inside, and they have the advantage of being completely under control. In the second house are Gros Maroc, Black Hamburgh, and Foster's Seedling. They are only just breaking, but lateral training, stopping and thinning, take a lot of time. In this Vinery I start the Begonias for summer bedding."

"You have more Vineries?"

"Yes, three. One contains Muscat of Alexandria and Madresfield Court; another Muscat and Lady Downe's Seedling (half a dozen rods); the fifth, a span-roofed house, contains Black Alicante, Gros Maroc, Gros Colmar, and Lady Downe's Seedling."

"With Vines on each side meeting on the roof, you must have a very large number."

"There are twenty-six Vines in this house, and some of them are from fourteen to fifteen years old. We get an enormous quantity of fruit, but, in order to do so, we use artificial manure freely. We begin cutting Grapes about the end of June, or early in July, and have fruit up to about the end of January or the beginning of February, thus keeping up a good seven months' season."

"Your Peaches are setting their fruit well."

"They promise, I think, satisfactorily, but about three parts will have to come off. I disbud so as to leave only enough wood for next year. The Peaches are Dr. Hogg, Dymond, Hale's Early and Alexandra Noblesse, with Pineapple Nectarine. In the other Peach house, which was only planted last autumn, the varieties are Royal George, Stirling Castle, Early Alexandra, and Nectarine Early Rivers. They are starting away all right."

### The Features of the Plant Houses.

"What are the features of your plant houses?"

"Malmaison Carnations are a great feature, and we also grow a few Trees. Some of the best varieties of the former are Souvenir de la Malmaison, Princess of Wales, Florizel, Lady Ulrica, Maggie Hodson, Iolanthe, Duchess of Westminster, Churchwarden, Mrs. Trelawney, H. J. Jones, Albion, King Oscar, Mercia, Lady Rose, Prime Minister, and Horace Hutchinson. The Trees include Prosperity, Mrs. T. W. Lawson, Robert Craig, Harlowarden, Fair Maid, White Perfection, and Leopold Rothschild. Then we have a house for bringing on bulbs for cut flowers, and in addition to several varieties of Narcissus and Daffodils, there are quantities of Lilacs in pots, the variety being Marie Legraye. Another house contains upwards of two thousand Geraniums, in addition to a number of frames which are full of them. These include Paul Crampel, Harry Hieover, and Henry Jacoby."

### How to Get a Quantity of Geraniums.

"As you bed out such a vast number of Geraniums, you might tell me briefly how you treat them."

"I strike about half a dozen cuttings in a 'forty-eight' pot in the autumn, and in the spring I put them into 'fifty-fours.' This is the best way of getting a number, but even then I cannot stock enough, and I have to purchase about six hundred in the spring. When the Geraniums leave this house, we put in Tomatoes. The varieties are Sutton's Best of All and A1, and Holmes' Supreme, and this year I have added Carters' Sunrise. If the crop is as good this year as it was last year, I shall have no occasion to complain. In the stove there are Crotons in variety, Eulalias, Anthuriums, Caladiums, Palms, and seven months ago we put in two Bananas, which look very promising. Melons and Cucumbers are grown in one house, the Melons being Emerald Green, Superlative, Hero of Lockinge, and Sutton's A1. Of Cucumbers, we grow Improved Telegraph and Lockie's Perfection."

"How long have you been at Canons Park, Mr. Robbins?"

"Nearly three years. I commenced my gardening career at Loudwater House in Hertfordshire, where I remained for seven years. Then I went to Denham Mount in Buckinghamshire, and I was subsequently at Norton Park, Worcestershire, and at Winterbourne Grange, Northwoods, Gloucestershire. We have only done a little local showing at present, but we shall continue, and perhaps may do more."

ALFRED WILCOX.

## Propagating Dahlias by Division.

OLD Dahlia roots—that is, the entire clump of tubers as lifted from the ground last autumn—may be divided into several pieces for the purpose of planting again this year. Some few amateurs, I find, suppose that the tubers have eyes all over, as the Potato has, but after a year's experience they will discover this is not the case. All the eyes from which growth can start are clustered at the base of the old (last year's) stem, and will in all probability be plainly visible. The object, when dividing, is to so part the clump as to ensure getting one or more started eyes attached to one or more tubers, and to ensure this, it is best to cut through the old stem, splitting it up into several pieces, and then thrust the knife through the centre, so as to first split in halves, and afterwards into as many parts as eyes and tubers allow.

Very often only two plants can be made of the old root, by simply splitting in halves, this being the case with double varieties, which grow but few tubers, but from average roots four plants can generally be made. There is nothing to be gained by having a quantity of tubers connected to each part, as these old tubers, after starting a new plant and supplying it with nourishment until fresh roots are produced, gradually decay and rot away, much as a Potato does after the new growth is no longer dependent on it.

### How to Pot the Divisions.

The roots, after being divided, are best potted, and I often see this work done in quite a wrong manner. As I have just said, the old tuber is of little use; consequently, if when potting the eyed portion is left above the surface of the soil, no fresh young "tuber" roots are produced, as these push forth immediately at the base of the young shoot. If, then, the whole of the portion to be potted is kept below the soil, these young roots grow quickly. At the same time, I do not advocate chopping the tubers off in order to get them into the pot, for by so doing we get the other extreme, as the old tubers first produce new fibrous roots from their tips, which support the young growth until fresh young "tuber" roots start. If, then, only the butt end of each old tuber is left to be potted, no fibrous roots can start at all, as the tips from which they grow are cut off.

Many Dahlia growers are puzzled by roots, which, although perfectly sound and healthy, never produce shoots or growth of any sort. These are blind—that is, they have no "eyes." The cause may be one of two: either the cuttings had no eyes when propagated, or the tuber had entirely grown over them, a circumstance not unlikely if Dahlias are grown for exhibition, when they produce very large fleshy stems close to the base.

If Dahlias, after division, are to be planted in the open ground, I would advise that the cut portions be allowed a day or two to dry and heal; and, when planting, fill in round them with a little fine soil. A good plan is to plant deep enough to cover the entire tuber, eyes and all; but, instead of filling in the soil, leave a hollow so that the eyes can be seen, and then, as these progress and shoots get fairly away, cover over the crown. Probably the finest plants will be obtained by potting the roots for a short time only, and transferring to the open ground long before the pots get full of roots. By this means young growth can be obtained long enough to show above ground, and yet the young roots have not had time to get cramped and diverted round the pot, but strike straight out into the open ground.

HARRY STREDWICK.

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AT the time of writing (Easter week), the beautiful pink-flowering Almond (Amygdalus) is in full flower in hundreds of gardens in the southern suburbs of London.

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A CORNER OF THE GARDEN AT GREAT WALSTEAD.

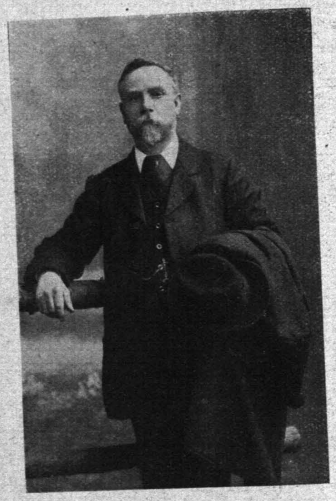
THE KITCHEN GARDEN AT GREAT WALSTEAD.

# The Gardens of Mrs. Rodgers, at Great Walstead, Lindfield

SITUATED at a short distance from the flourishing village of Lindfield, Great Walstead combines the advantages of a modern house with surroundings which suggest that the estate has a considerable past. It extends over nearly three hundred acres, includes a beautiful park of eighty acres, and the gardens and orchards cover thirteen. Mrs. Rodgers, to whom it belongs, is fond of hunting, and has an excellent home farm, with a fine dairy. She is also keenly interested in the gardens, which, under the auspices of the gardener, Mr. W. H. Robbins, are altogether on up-to-date lines, with new developments constantly in progress. Two of these I saw soon after my arrival in brilliant sunshine on a delightful December afternoon. The first was the rosery, planted a little more than two years ago.

"It is planted," said Mr. Robbins, "in sections, with two or three dozen of a sort in each, which are fairly well arranged. The varieties include Frau Karl Druschki, Madame Ravary, Mrs. John Laing, Duke of Edinburgh, Liberty, Richmond, Hon. E. Gifford, Caroline Testout, Madame Abel Chatenay, Kaiserin Augusta Victoria, Jules Grolez, and others. This week, the third in December, I cut a handful of blooms of Madame Abel Chatenay, Liberty, and Richmond. There are two arches covered respectively with Hiawatha and Dorothy Perkins, and Crimson Rambler and the climbing Kaiserin Augusta Victoria. I suppose that the number of plants in the rosery is nearly seven hundred.

"Then, on the right hand side of the carriage drive, cut out of the park and leading to the skating pond, which is decorated with ducks, is the new Rose avenue, which was only planted last month. The background includes not only the water, but a number of notable trees, such as Purple Beeches, Larches, and Firs, with an undergrowth of Scarlet Oak. The length of the avenue is from eighty to ninety yards."



MR. W. H. ROBBINS.

"I notice you have ropes across the avenue instead of chains."

"Yes; they are preferable to iron chains, because they are warmer, and will sway with the wind. They also, I think, give a more finished appearance. There are twenty poles on each side, generally twelve feet apart. Of course it will take time to develop, but in two years the avenue should be a very pretty feature."

### NEW AND OLD VARIETIES.

"With regard to varieties, there are the latest as well as the best, and they include Dorothy Page Roberts, Betty, Countess of Derby, Cynthia Forde, Duchess of Wellington, General McArthur, Grace Darling, Joseph Hill, Lady Ashtown, Mrs. Arthur Waddell, Mrs. Cornwallis West, and many others. These are dwarfs, but the varieties on the arches embrace American Pillar, Tausendschon, Alberic Barbier, Excelsa, Sweetheart, Paradise, Carissimo, Paul Transon, and Milky Way. There are also several of the Wichuraianas. Roses are quite one of our features, and we expect great things from the dwarf varieties.

"The herbaceous borders are also an important feature. Divided by the sun-dial, serpentine in shape, one of the borders is seventy yards long and the other sixty. The width varies from fourteen feet, tapering down to four or five. All the plants are in clumps, and they begin to flower quite early in May, starting with Violas, Frittilarias, and Doronicums. The great show is, however, in summer, and amongst the more prominent plants in the front are Asters, dwarf Rudbeckias, Ten-week Stocks, white Pinks (Mrs. Sinkins), Alyssums, Aubrietias, Sedum spectabile, the Shasta Daisy, and Chrysanthemum maximum. With regard to Sedums and Aubrietias, we put a brick underneath them where the ground is wet, and place the soil round it. The taller growing varieties at the back include Phlox in variety, Astilbe rivularis, Delphiniums, Bocconia cordata, Anchusas Dropmore variety, Sunflowers, Hydrangea paniculata, and Tritomas, which are still in flower.

"Bedding on the front terrace is not on an extensive scale, but probably sufficient to fulfil the object, which is, to add beauty to the house. The style of the latter is Victorian, with gabled ends, and the climbers on the mansion consist of Bignonia radicans, Cratægus, Ampelopsis Veitchii, Rose Marechal Niel (from which we get a mass of flower), and Wistaria sinensis. On the northern side the creepers are confined to Irish Ivy."

### THE TERRACE BEDDING.

"How do you fill the beds in spring?"

"Chiefly with Arabis and white and scarlet Tulips, but we have also a combination of purple Aubrietia and yellow Tulips. These will be followed in summer by fibrous-rooted Begonias, with copper leaves and crimson flowers, Abutilon Thompsonii in the centre, and an edging either of Centaurea candidissima, or dwarf Begonias. I keep the latter for this purpose. In the shrubbery borders, Geraniums Mrs. Lawrence

are largely used, and different varieties of the tuberous Begonias. The corners are now filled in with blood-red and yellow Wallflowers. The terrace bedding faces south and east.

"The conservatory is quite a recent addition, and was only erected two years ago. Nothing is planted in borders, so that the whole of the contents can be changed at any time. Just now Cyclamens and Poinsettias are prominent, with Palms and Aspidistras. There are about fifty Poinsettias, which we grow in a cold frame in the summer, with all the sun we can get. When we do not think that they are warm enough, they are brought into the greenhouse."

GREAT WALSTEAD, LINDFIELD.

Crossing the lawns, which cover about three acres, including tennis and croquet courts, and are adorned by Piceas in variety, Cedars, Wellingtonias, and Oaks of splendid growth, we arrived at a collection of Rhododendrons and Azaleas. These give masses of flower, planted on the sandstone, with peat added to the soil. Further on is the Michaelmas Daisy bed.

"This," continued Mr. Robbins, "has yet to be treated and planted. It will be rather a border for cutting than for combination of colours. The Michaelmas Daisies will not suffer from the shade of the avenue of Limes, which is valued highly for the protection it provides during the summer months. At the end of the avenue, just outside the kitchen garden, is the original rosery, with a herbaceous border on either side, while on the walls behind are Plums and Pears. The collection of Roses is miscellaneous, old varieties being strongly represented."

### ANNUALS FOR CUTTING.

"I should like to know which you consider the best annuals for cutting?"

"The best Aster is the sinensis, the pink and blue varieties; the best Antirrhinums the Intermediate varieties, such as Orange King and the yellow shades; the blue variety of Centaurea (Cornflower); the rose and white varieties of Cosmea; Coreopsis Drummondii, golden with crimson centre; the blue and white Nigella, Miss Jekyll; Shirley Poppies, which, arranged with various grasses, are very beautiful for vases, but should be cut early in the morning before the sun touches them; Salpiglossis, mixed varieties; Scabious in variety, most desirable for vases; Ten-week Stocks, especially Princess Alice and Mauve Beauty; Godetias, which should have a place in every garden; Dimorphotheca aurantiaca, orange daisy, twelve inches high; and the never to be left out Mignonette."

"Shall we take the orchard before the kitchen garden?"

"It will be quite as convenient. It is limited to Apples, all on standards, with Potatoes as a ground crop. This year we gathered about one hundred and twenty bushels of Apples, and also made two hundred gallons of cider.

"In the kitchen garden we suffer very much from the fact that we lie in a valley and experience the full severity of the spring frosts. Last season both Peaches and Plums on the walls were more or less a failure, and Pears, with two exceptions were not much better. The exceptions are Beurre Clairgeau and Beurre d'Anjou, the crop of the latter being very fine."

"What is your system with Strawberries?"

"A new plantation is made every year for the finest dessert fruit, and the second year plants always give the largest quantity of fruit. The varieties are Sir Joseph Paxton, Royal Sovereign, and President."

### VEGETABLE CROPS.

"Are there any special points in vegetable cultivation?"

"Our Asparagus beds, ten in number, have just been cleaned off and mulched with rotten farmyard manure. We cut thousands of heads annually. The early Peas include Little Marvel, Duke of Albany, and Early Giant. Other varieties are Superlative, Late Queen, and The Pilot. We are cutting at the present time Broccoli, Sutton's superb Early White, and Winter Mammoth. Kales are grown in variety, and of Cabbages we find the small-hearted the most useful, especially Flower of Spring and Ellam's Early."

"What about showing?"

"We exhibit at the local show, which is held at Hayward's Heath, and have taken many prizes for fruit and vegetables and Chrysanthemums. Mrs. Rodgers is one of the vice-presidents. You may like to add a few particulars about our special Christmas table decorations?"

### ORIGINAL TABLE DECORATIONS.

"I am sure they would be very useful."

"In 1912 we had a snow scene for the dining-room table, which consisted of a miniature forest. The table was covered with an electric cloth, over which the white cloth was placed. The electric candles, with red shades, having been put in their positions, we placed immediately under them, in the centre of the table, a branch of a young Birch, and on either side, in line with it, a branch of Fir, not quite so tall. At each end of these were small twigs of Birch, and nearer the sides of the table were placed alternately, small pieces of Birch and Fir, all so arranged as to leave room in the centre for at least two dessert stands and room at the sides and ends of the table for plates, silver, glasses, and bon-bons. No flowers whatever were used."

"This year we are having another decoration on somewhat similar lines, only it takes the form of a snow hut, arranged on the floor at the window end of the dining-room, with two huge teddy bears placed above it. For table decorations, we are using a bowl of Poinsettias in the centre, the soil being hidden with Wood Mosses; four vases of Roman Hyacinths, each with a spray of frosted Birch or frosted Picea in the centre."

### THE CAREER OF MR. ROBBINS.

"Where did you start your gardening career, Mr. Robbins?"

"At Bristol, in the famous old nursery belonging to Messrs. Maule. I was next at Sneyd Park, Stoke Bishop; and then for part of a year

THE GARDENER'S COTTAGE AT GREAT WALSTEAD.

in Veitch's nurseries. From Veitch's I proceeded as Orchid grower to Camden Wood, Chislehurst. For twelve years I was head gardener. Mr. Vanner was an enthusiast on Orchids, and had a collection of quite two thousand plants. Five years ago in February I came here to take charge of these gardens. The staff under me is not large, but in the person of Mr. Willie I have an excellent foreman, and loyal support is given me all round."

ALFRED WILCOX.

dense forests, where the struggle for light and air is necessarily keenest. A passage which I have just come across in "The Naturalist in the Amazons" has some bearing upon the point. The author mentions, as one of the most striking features of the Brazilian forest, "The woody, flexible stems of climbing and creeping trees,

MR. J. ROBERTS.

whose foliage is far away above, mingled with that of the taller, independent trees. Some were twisted in strands like cables, others had thick stems contorted in every variety of shape, entwining, snake-like, round the tree trunks, or forming gigantic loops and coils among the larger branches; others, again, were of zig-zag shape, or indented like the steps of a staircase, sweeping from the ground to a giddy height. It interested me much afterwards to find that these climbing trees do not form any particular family. There is no distinct group of plants whose especial habit is to climb, but species of many and the most diverse families, the bulk of whose members are not climbers, seem to have been driven by circumstances to adopt this habit." That is very strong evidence of the influence of environment.

May 19th.—One feature of bedding which is considered objectionable by many is the stiffness of the edge. Here, such plants as Ivy-leaved Geraniums, and even Nasturtiums, are useful, for they may be allowed to pass beyond the borders, and intermingle with the grass. No doubt, it entails some additional trouble, but if the outlying shoots are pinned back by means of sticks, before the lawn-mower is used, it is not difficult to keep the grass in order. Parsons goes further than this. He recommends that single plants of the same kind as are in the beds should "be set out in the grass, just beyond the actual borders." I am not sure how this would look in practice, but it would certainly prove very troublesome to the gardener, for it would necessitate a good deal of work with the shears.

May 20th.—In the amateur's greenhouse Richardias (Arum Lilies) generally form a prominent feature in spring. I have grown every species in cultivation, and have found the ordinary one (R. africana) much the most satisfactory. Little Gem is certainly very pretty, but rather difficult to obtain, another variety (R. nana compacta) being generally substituted for it. The yellow Richardia (Elliottiana), though much cheaper than it used to be, does not seem to have become very popular—perhaps because it requires more heat than R. africana.

H. C. DAVIDSON.

# Famous Gardeners at Home.

## No. 190.—MR. J. ROBERTS, AT THE GARDENS, BROOMHILL, TUNBRIDGE WELLS.

VERY soon after I arrived, early in the month of April, at Broomhill, the well-known country residence of Sir David Salomons, Bart., a short distance from Tunbridge Wells, in order to look round the gardens, and have a chat with Mr. Roberts, the head gardener, I discovered that there are a number of features to which special attention is given. Not that any department is neglected, for a stroll through the pleasure grounds justifies the statement that they could not be kept in better order. But, picturesque and attractive as they are, the splendid kitchen garden and the fine range of glasshouses at Broomhill stand first in order. For this reason only, and not because there are no other subjects of interest, prominence is given to them in this article. I will deal first, however, with the natural beauties of the pleasure grounds, beginning with the delightful Wood Walk.

Passing the theatre, which, like the stables, and, in fact, everything at Broomhill, attests the taste of the owner, we proceeded from the upper terrace, nicely shaded from the east wind, by natural steps, towards the rockery and the lake. In the former are some favourite old Oaks, and in the centre of the lake, which contains trout and dace among other fish, is an island. The Beechy Wood, so-called because of the number of Beeches, is another charming spot, and here it may be said that Broomhill has a well-deserved reputation for its old trees, which Sir David carefully preserves. Like the undulating ground, they constitute a distinct attraction. In one of the few level spaces an extra tennis court is being made, with Rose beds all round, which should prove a useful and pleasing addition.

"Do shrubs thrive?" I inquired, as I noticed, near choice specimens of Cedrus deodara, Wellingtonias, and Cryptomeria, some fine bushes of Rhododendrons.

"Yes," rejoined Mr. Roberts, "they do very well, indeed, Rhododendrons notably. These were planted more than twenty years ago. Many are named, but some are ponticums. Ivy is rather a feature here, and it is clipped every year. As you see, it grows on the tower, and all round the house."

Continuing our walk, we came to another small lake, cleaned out last year, and, observing on the way several tombstones, erected to the memory of pet dogs and cats, we reached the old drive, leading to the main road. The great ornament of the drive is a magnificent Oak, exceedingly symmetrical, with Ivy clinging to its spreading branches. Through the Rock Walk, we proceeded back to the terrace, to look at the bedding.

"We do not," said Mr. Roberts, "go in for spring bedding, but for summer these twelve beds are chiefly filled with Begonias, Cannas, and Fuchsias. At present there are sets, but I propose to alter them to designs."

"You have a quantity of Camellias," I remarked, as we went into the winter garden close to the house.

"Yes, they give us a quantity of flowers, white, pink, and scarlet. One variety is C. imbricata, but there are others very much older, and one is of the Hollyhock shape, with a disc round the centre. Later on we plant the winter garden with Ferns. The largest of the several Tree Ferns spreads out twelve feet across. The roof is covered by Cobæa scandens."

The kitchen garden, which is above the house, is two acres in extent, admirably arranged, and strikes the visitor at once as being well looked after, both from the artistic and the practical point of view. Immediately we entered, I observed that the Loganberry is grown in quantity.

"We got the canes when they first came out, from Mr. Bunyard," replied Mr. Roberts, "purchasing three dozen, which we trained on wire, with fifteen or sixteen poles about six feet high between. They are treated exactly the same as Raspberries, and ripen about the same time. The crop is invariably good, and I believe that, generally speaking, the cultivation of the Loganberry is increasing."

"What varieties of Raspberries do you grow?"

THE RANGE OF FRUIT HOUSES AT BROOMHILL, TUNBRIDGE WELLS.

"Only Superlative. These canes have been here from fourteen to fifteen years, and some years I have picked eight bushels from them."

"I gather by the appearance of the garden that Apples and Pears are a feature."

"We have sixty varieties of Apples, and about forty-five of Pears. I have shown a collection of fruit, not for competition, and I could have put up a hundred dishes. Before we discuss varieties, I may mention that this garden was altered and almost revolutionised between 1888 and 1890, when the new range of glass was erected. Pears, you see, are grown on various principles."

"Which system do you prefer?"

"It depends upon the variety. Williams's Bon Chrétien has a better flavour when it is grown as a pyramid or as a horizontal tree than on the wall. On the other hand, Winter Nelis and Josephine de Malines do better on the wall. One of the best late Pears is Nouvelle Fulvie, which comes in about Christmas. It is rather rough in outline, but a very good cropper. Like Nouvelle Fulvie, Olivier de Serres wants a wall. It is also a good late Pear, with an excellent flavour, and ripens in January. Other Pears which flourish most on a wall include Bergamotte Esperen, Glou Morceau, and Knight's Monarch, which lasts a long time after picking if it is kept nice and cool."

"What about Doyenné du Comice?"

"It will do well in almost any way, but it is a little cleaner on the wall. Beurré Alexander Lucas, which is spotted like the Trout Pear, does well on the wall, and as a tree. Most of the late Pears, however, flourish on the wall, but they vary according to the soil and stock on which they are grown, and, after they are picked, upon the way in which they are kept."

"Did you plant most of the Pear trees?"

"All, I think, save the old Catillac tree. The Catillac is one of the best stewing Pears."

"Which is your biggest Pear?"

"Marie Benoist. It will flourish in the open, but it should have a wall. One of its merits is that it comes in when nearly all the varieties are over. One of the prettiest is Durondeau, a mid-season Pear. Pitmaston Duchess is another mid-season. We grow both these on pyramids and horizontally."

"Then, there are the Pears on the cordons."

"Yes, we have a nice lot of various sorts on the east wall. They hang a little longer. We grow Doyenné du Comice in four different aspects, in order to have fruit at different times. Some are on the Quince, and others on the Pear stock. All the best Pears I put in paper bags."

"To protect the fruit?"

"The use of the bags prevents the friction of the fruit and the leaves. Also, the bags keep out the wasps and the birds, and the appearance of the Pear is improved. Another and important point is that, protected by paper bags, the fruit can hang on the trees until the end of October, regardless of frost. In fact, I have no trouble in keeping Pitmaston Duchess until the end of November. Each Pear is tied in the bag to the bough. When people ask me, 'Where do you keep your Pears?' I say, 'On the trees, hanging in the bags.' I warmly recommend the system. The flavour of the fruit is not in the least affected, and the Pears so protected give us a longer season of fruit."

"The Apple blossoms promise nearly as good crops of fruit as the Pears?"

"I can only hope that they will be as good as they were last year. There are a few grown horizontally, but none on the wall. The great majority are bush pyramids. Two of the earliest are Duchess of Oldenburg and Lady Sudeley, but we have more of the mid-season and late Apples."

"You might name a few of the choicest varieties?"

"Peasgood's Nonsuch, Lord Derby, Gloria Mundi (one of the most handsome), Cox's Orange Pippin, Allington Pippin, Egremont Russet, Mabbot's Pearmain, Fearn's Pippin, Washington, Emperor Alexander, Grenadier, King of Tompkins County, Brownlees Russet (a small Apple), Dutch Mignonne, Beauty of Kent, Belle de Pontoise, Bismarck, Sturmer Pippin, Mannington Pearmain, Lane's Prince Albert, Gascoyne's Scarlet, Newton Wonder, Claygate Pearmain, Ribston Pippin, Winter Pearmain, American Mother, Scarlet Nonpareil, Ross Nonpareil, Wealthy, and The Queen."

"I admire the idea of your archway of Cherries?"

"When they are in bloom, about the beginning of May, there is a mass of flowers. The varieties include Bigarreaus of kinds, Black Tartarian, and May Duke. Along the bottom wall we grow Morello Cherries and Plums."

"Do you expect a fair crop of Plums?"

"They will flower well, but the sparrows pick the buds out so much that it is not often we get a big crop. The dessert varieties are Coe's Golden Drop, Purple Gage, Transparent Gage, Greengage, Jefferson, and Oullin's Golden Gage (a very good yellow Plum). The best cooking Plums are Washington, Archduke, Black Diamond, Victoria, Czar, and Pond's Seedling."

"You have all kinds of bush fruit?"

"We have a good supply of Gooseberries, the varieties being Whinham's Industry, Keepsake, Velvet White, Telegraph, Lancashire Lad, and Green Gascoyne, a thorny kind, which the birds cannot interfere with in budding. Of Currants, I think that the best black is Boscopp's Giant, a very large Currant, which has also the merit of being apparently proof against the mite, one of the curses of Kentish fruitgrowers."

"How about Strawberries?"

"One of the favourites is Sir Charles Napier, very refreshing and a good cropper. Of course, we have Royal Sovereign, of which we force about thirteen hundred pots every year, and we also grow The Laxton. President still holds its own, and we continue to grow Sir Joseph Paxton and The Viscountess. Before we leave outdoor fruits, I may mention that the Blackberry Lacinatus does remarkably well. I planted two long rows about twelve years ago, and we get as good a crop of them usually as we do of the Loganberry."

"I should like the names of a few of your leading varieties of vegetables."

"We have just made some new beds of Asparagus, Mortlake Giant, surrounded by Peas. Our early Peas are William I. and Gradus; the main crop, Telegraph, Duke of Albany, and Gladstone; and one of the best for late work is Ne Plus Ultra. As I do not show Onions, I do not go in for huge specimens, but look out for the best for use. It is not easy to excel Sutton's Improved Reading and Ailsa Crag. Potatoes are chiefly grown on the farm."

"I see that you have Roses to beautify the kitchen garden."

"Yes, they are grown right round it. The Apple trees screen the Roses from the sun, to save them from being burned. The varieties are Teas and Hybrid Perpetuals. I have not yet planted any Hybrid Teas."

At this stage we went into the greenhouse, on the roof of which Roses flourish exceedingly.

"Perle des Jardins," said Mr. Roberts, "does better on the roof than Maréchal Niel; the other Roses are Niphetos, Devoniensis, and Kaiserin Augusta Victoria."

"You have a brave show of Tulips here."

"We grow a large quantity of the sweet-scented varieties, the Prince of Austria (red), and the Prince of Orange (yellow). The very early Tulips are Ortus, Duc van Thol, Pottebakker (white), and Nellie."

"How many Daffodils do you grow in pots?"

"A great number. We have sixty vases to fill in the house twice a week, and that means a constant supply of blooms has to be kept up. Six of the chief varieties are: Golden Spur, Horsfieldii, Barrii, Empress, Emperor, and Sir Watkin. The two best white Hyacinths are Madame van der Hoop and La Grandesse."

"Some of the spikes of your Hyacinths are grand, and you also seem to have a good collection of Azaleas."

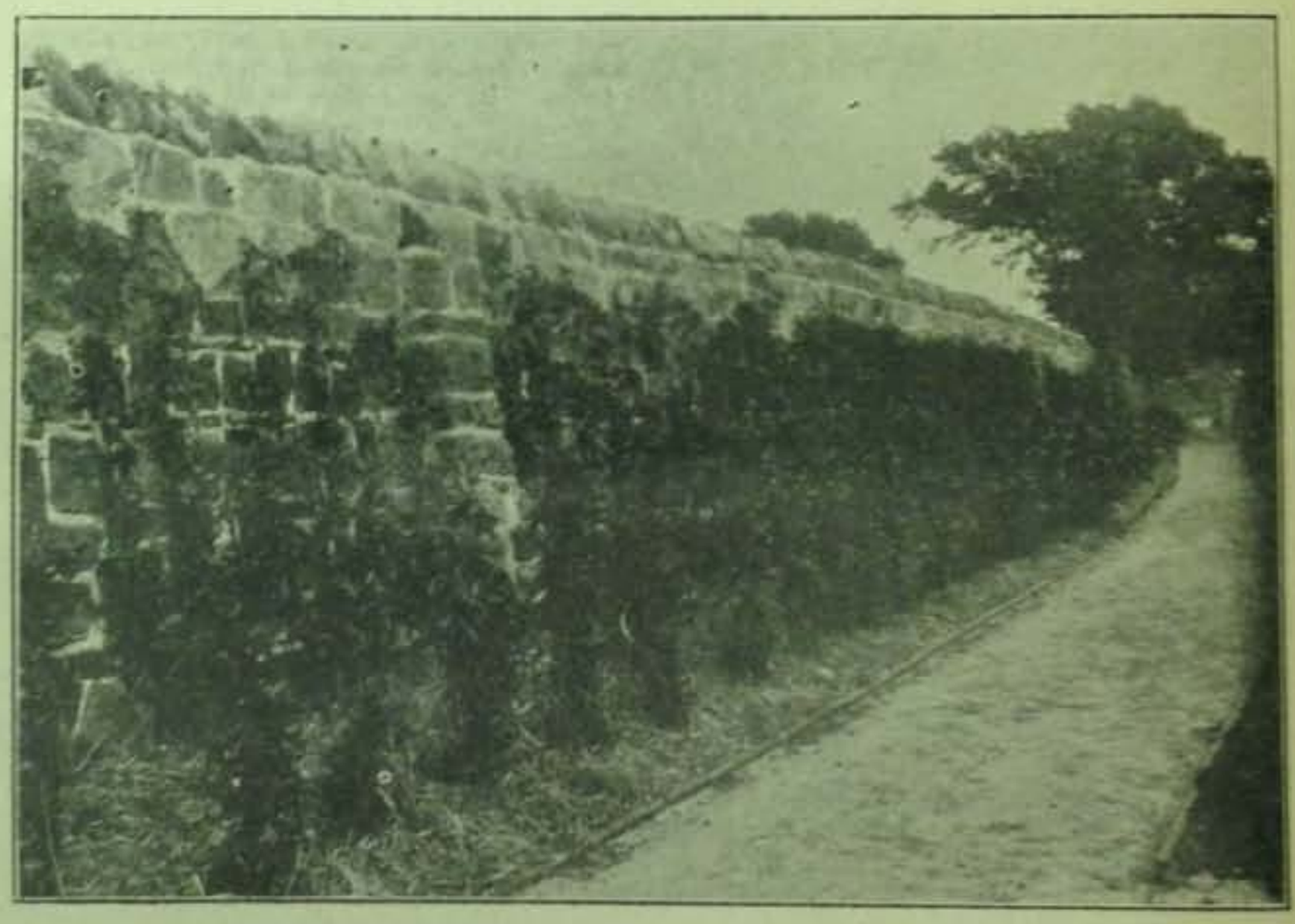
"The principal varieties of Azaleas are Niobe, Sir T. D. Llewellyn, Apollo, Paul Webber, Simon Mardner, and Madame Joseph Vervaene. If the Azaleas are kept in a cool house they will flower for six weeks."

"Of course, your Vines were planted when the range was put up?"

"Yes, in July, 1890. You will notice that the Vineries are built of pitch-pine, that there are slate stages and slate shelves, and that the grating is exceptionally wide. The woodwork was put up by Messrs. Crompton, Fawkes and Co., of Chelmsford, and the brickwork by Messrs. J. Crutes and Son, of Tunbridge Wells. The brackets were specially cast, and the ventilators work with a rod and lever. In this house Muscats are grown. I am a great believer in summer planting. It means that Vines get established for the next spring, and as a practical proof of the advantages of the system, I may say that out of thirty-two Vines planted in summer not one failed. In this house we grow a quantity of Maidenhair Ferns, which are stood in large china vases for house decoration."

"You also have a number of gold and tricolor Geraniums here?"

"There are about six hundred—Mrs. Pollock and Lady Cullum are the varieties. Sir David Salomons never wears a flower, but he has two



The Tomato Border at Broomhill, Tunbridge Wells.

of these tricolor Geraniums for a buttonhole every day in the year. For that purpose they are wired and tinfoil put round them."

"I notice that there are borders both inside and outside."

"Yes, and you observe that the trellis, which consists of galvanised wire, and has screws at one end to tighten it when required, is fixed two feet from the glass."

"Perhaps you would tell me why the usual plan of keeping close to the glass has not been followed?"

"I will endeavour to explain. The advantage of keeping the foliage clear from the glass, instead of allowing it to press close to the glass, as it generally does, is greater than many people imagine. In the latter event, a number of the best leaves cannot perform their function, because their upper surface is moist half the time. They are so close to the glass that respiration and inspiration cannot go on as it ought to do. One great advantage of having the trelliswork two feet from the glass is that the Vine shoots can be allowed to grow in an erect position till after they have flowered. Probably, the flowers set better in consequence, and the tying down becomes a very easy matter. Moreover, the branches get the full benefit of the light and air, and the Vines are in a much more even temperature than when they are close to the glass. Every gardener knows how difficult it is to tie a young Vine shoot down, and how frequently, when a shoot is tied down in the day and seems all right, it is found the next morning snapped off at the junction with the old wood, causing a permanent blank. This does not often happen when the tying is deferred till after the flowering. The shoots are then comparatively wiry, and can be bent to a horizontal position with ease, while, at the same time, the fruit is thinned."

Between the late Vinery and the Peach house is a very fine Mushroom house, built of York stone, with iron girders for the top beds, the bottom beds being nine inches of brickwork. All the beds are about a foot deep, and Mushrooms are picked from the beginning of November to the end of July."

"How long is the Peach and Nectarine house?" I inquired.

"Thirty by twenty. The Vinery is thirty by eighteen. I think Bellegarde one of the best Peaches, and Lord Napier one of the best Nectarines. Royal George is also a very good Peach. On the back wall we have Nectarines —Pitmaston Orange and Rivers' Early. I pulled off about a gallon of bloom in this house. The fruit does not set so well if a great quantity of bloom is allowed to remain."

"The Vines in your early Vinery are looking remarkably well?"

"We rather pride ourselves on the cleanness of the foliage. The varieties are Black Hamburgh and Foster's Seedling. Strawberries are forced in this Vinery, but neither the Vines nor the Strawberries are so early as some, because all the roots of the Vines were lifted last September. But the lifting has had the best possible effect upon the Vines. In the intermediate Vinery we have Alicante, Gros Maroc, Hamburgh, and Madresfield Court."

"What varieties of Peaches and Nectarines do you grow out of doors?"

"The Peaches are Royal George, Grosse Mignonne, Hale's Early, Sea Eagle, and Dymond; the Nectarines that do best outside are Pineapple, Rivers' Orange, Stanwick Elruge, Lord Napier, Humboldt, Early Rivers, and Violette Hative."

"We have not said anything yet about Tomatoes and Melons."

"For planting outside, Sutton's Earliest of All is the best Tomato. The fruit is of medium size, brilliant red colour, and good form, very prolific and of good flavour. Sutton's Best of All is excellent; also Sutton's Abundance and A 1. I have tried many other varieties, but have found none superior to these. The Melons grown are Hero of Lockinge, Sutton's A 1, Empress, Sutton's Scarlet, Best of All, and Perfection."

Resuming our inspection of the houses, Mr. Roberts drew my attention in the stove to a quantity of Selaginella moss, grown in tins, mixed with Panicums.

"At any time," he continued, "we can stick into the moss, a Rose or any kind of flower, five or six inches high. Growing in tins the moss does not wither, and we change the plants as often as we like."

"How many Gloxinias do you grow?"

"Between two and three hundred. They are the spotted hybrids and selfs. The Bougainvillea glabra, which has been here since the house was built, is throwing out spikes a yard long."

"Orchids are not grown to any considerable extent?"

"No, but the foliage of the Cœlogyne cristata, which, six weeks ago, were a mass of bloom, was wonderful. Three pans had sixty spikes of flower on each plant in the pan. I never saw a finer lot."

"Do you go in largely for Chrysanthemums?"

"About three hundred are grown for spring flowers, and about three hundred more for cut bloom. Some of the best of the former are Madame Ad. Chatin, Queen of the Exe, Winter Queen, Francis Pilan, Dazzler, Gratianopolis, and Princess Victoria. For big blooms I like F. S. Vallis, Bessie Godfrey, Duchess of Salterton, Lady Byron, Elsie Fulton, Miss Stopford, Mrs. Dawson, Mr. C. Beckett, and Edith Smith among others. The up-to-date varieties, such as Valerie Graham, B. H. Shrewsbury, Maud du Cros, and Madame Oberthen, are also grown."

There just remained time to have a glance at the potting shed and offices; the fruit room, with a good many Apples still in it, including King of Tompkins County, Mere de Menage, Golden Knob, Swedish Reinette, Tyler's Kernel, Hoary Morning, and Mannington Pearmain; the packing room, with excellently-contrived boxes; the commodious Grape room; the root room, and the modern boilers. Finally, I asked Mr. Roberts how long he has been at Broomhill.

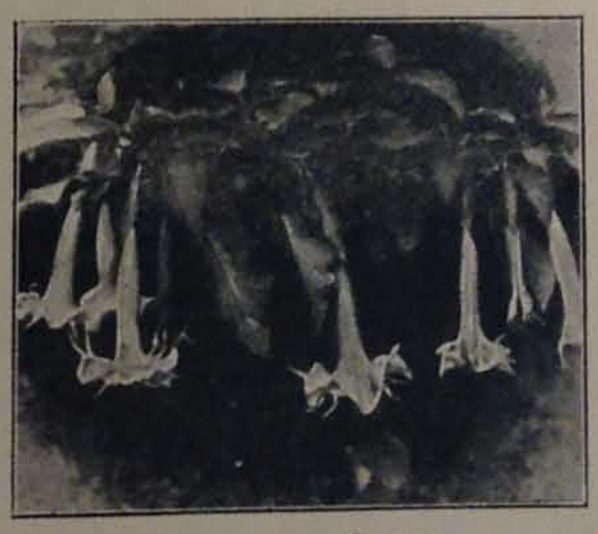
"Twenty years this spring. Since I have been at Broomhill I have been awarded certificates for collections of fruit, and for Chrysanthemums."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 146.—RAISING TOMATOES FROM SEED FOR EARLY FRUITING.

DEAR KATE,—We have been planting out our Tomatoes, both in a frame and against the south wall of the Vineries; and in both cases we use boxes for them, for they fruit so much better when their roots are restricted, but well fed on the surface by mulches of rich food. We always sow our Tomatoes for early work in October, or early in November, placing each seed separately about two inches from the next, in a shallow box of ordinary loam, which stands in the warm Vinery, close to the glass, as soon as the seed is up, for the great thing is to get sturdy little plants which have never been drawn up. When they are about two inches high we pot them up singly, each in a thumb-pot of good loam, still keeping them close under the glass, except during frosty nights, when they are taken down from the shelf, and placed out



A DATURA IN A GARDEN.

of the way of a possible chill if the fire should go down towards the morning, for they are delicate little things, and will not bear a low temperature. Early in February they are ready for a shift into 4-in. pots, and, later on, they are potted on again, so that by this time they are large plants, in bloom, with a few fruits set, and in this way we get early Tomatoes out of doors.

Of course, those which are planted under a frame come in first of all. The plants are on their sides in good loam (without manure), so as to enable them to throw out surface roots from the stem (which should be covered up to the first leaves), and as they quickly make for the glass, it is easy to train them over horizontal sticks or wires, about six inches below the glass. As soon as the fruit is set, we give them a top-dressing of manure, and this encourages the surface-roots, on which their strength depends. They have to be pinched every week, to remove the shoots which appear all up the stem, alternately with bunches of fruit, and they must have plenty of water when in their fruiting stages, though not too much until then, or they are apt to go too much to leaf instead of fruit.

Air is necessary for them night and day, and the lights of the frame should never be quite shut, except, it may be, on a cold night, just after they are planted. The diseases to which they are subject (Cladosporium, etc.) are mostly caused by too much moisture and not enough air; and you will not be troubled with these fungoid pests if you never shut your Tomatoes up too much, and keep them fairly dry until they have set their first bunch of fruits.

In the flower garden bedding-out is, of course, in full swing, but we do not go in very heavily for bedding-out plants, as most of our borders are of herbaceous things. But there are a few, of course, which everyone should have, such as Heliotropes, Petunias for a warm, light soil, Ivy-leaved Pelargoniums, Cannas, etc., and amongst the half-hardy annuals, Salpiglossis, Nemesia strumosa, Cosmeas, and the new pink Nicotiana Sanderæ, which is said to be so very effective in the garden, but I have not yet seen it in bloom, though we have nice little plants to put out now, so I will tell you more of it later on. Then there are the more tropical things, such as Ricinus Gibsoni (the bronze Castor-oil), Cannas, etc., which are not put out until the first week in June, as they do best when they grow "right away," as the Americans say, without a check from a cold night or an east wind; and the great plants of Datura (Brugmansia) suavolens, which now are turned out of their pots into the garden, giving them plenty of manure in planting them, for they are very hungry things. We always place the Daturas in a position in which one can see the great double trumpets from below, *i.e.*, at the top of a grass bank, just below the terrace, as they look so well there; they are taken in every autumn, cutting round their roots first, to make them fit a large pot, and they produce a lot of flowers in winter, as well as in summer. But their special enemy is red-spider, and if they are not well fed, both with rich soil and liquid manure, as well as abundance of water, they will lose their foliage and look wretched. The best thing to do, then, is to cut them back in spring, and let them shoot a little before placing them out of doors, and they should be syringed every day of their lives, except in rainy weather, when they are in

# FAMOUS BRITISH :: GARDENS. ::

## ASHRIDGE PARK, BERKHAMSTED.

*Interview with Mr. David D. Robertson.*

ASHRIDGE, the Hertfordshire seat of Earl Brownlow, is about four miles from Great Berkhamsted, and is situated on rising ground some six hundred feet above sea-level. Of the house itself much might be written—for is it not one of the most famous of "the stately homes of England," at least in the southern shires? But to do justice to the gardens and grounds is perhaps a harder task, so extensive are they, and embracing so many features of interest. The park comprises over twelve hundred acres, with splendid timber and many specimen trees; while as to the pleasure grounds, some idea of the state in which they used to be kept up may be formed from the fact that in pre-war days a staff of twenty-six was regularly employed upon them, though now it has dwindled to five old and physically unfit men. No fruit is grown here, nor is any space devoted to kitchen gardens, save about an acre, the fruit and vegetables being supplied from Belton, his lordship's Lincolnshire residence.

"You could spend a whole day inspecting these gardens," said Mr. David D. Robertson, when I paid him a visit early in January; and we had not gone far ere I was in full agreement with him, and was disposed to grumble at the train arrangements which landed me there as the sun was almost sinking. But later, when daylight faded, and the moon shone out brilliantly from a clear sky, throwing every object into sharp relief, and bathing the scene in silvery light, I was more than reconciled to the circumstances.

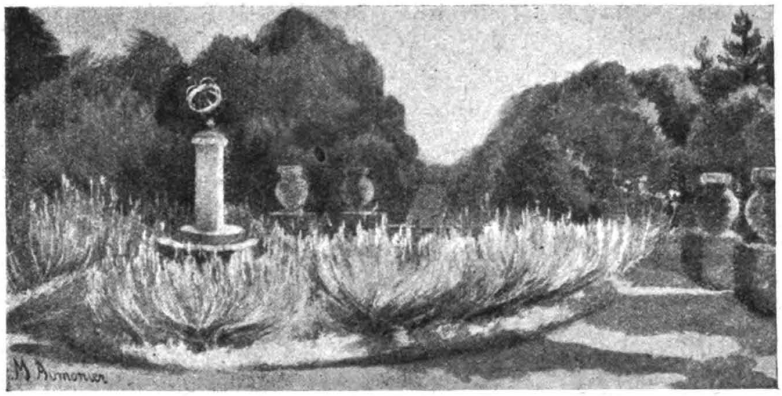
### THE FERN HOUSE.

The first place we inspected was the Fernery. Here is a feast of green and variegated foliage that almost baffles description. The house is more than twenty feet high, with a back wall of artificial rock, a pool at its foot. But the first thing to strike the eye is the beautiful drapery of Ficus repens, trained up the wall, running along the rafters, and hanging down in immense festoons. Built up in the centre are raised beds, with Begonia Rex planted out in quantity, and some of them over three feet high. Their large, ornamental leaves give a rich, tropical effect, which is heightened by the even more gorgeous foliage of Alocasia gigantea, with its metallic lustre and imposing dimensions. Near by is a Monstera deliciosa, trained as a rambler, and showing its curious fruits; and further round, closer to the water, is the graceful Papyrus (Cyperus Papyrus), from which the ancient Egyptians made their writing paper. Adiantums on the wall, and Begonia Rex in pockets and in the borders round the house, add to the attractiveness of the place. To my question Mr. Robertson replied:

"Practically nothing has been done to this house since before the war. The Begonias have been planted out for the last eight years. They are easy to propagate from leaves. The Alocasia has been left to itself; we merely cut out the old stems as they get past their best, to make room for the younger ones that come up from the bottom. We do the same with the Papyrus, cutting out the old ones each spring. The young ones grow rapidly, and reach to the roof in the season. As to the Ficus, we clip it over in February, and it soon becomes green again. The Monstera wants more heat to ripen its fruit. The maximum temperature here is fifty degrees."

From the Fernery we passed out into the Monks' Garden (Ashridge is built on the site of a college of Austin Canons, and tradition has it that the monks had their garden here). It is a secluded spot, with a cloistered walk on one side. The beds are laid out in geometrical designs, each of the four quarters having a coat-of-arms in Box. They are now empty, but in the summer are filled with Begonias. One long border at the side has herbaceous plants and annuals; in another large Fuchsias are put out as soon as the weather permits. A noteworthy object here is a sundial presented to Earl Brownlow in 1909, by the Glass Blowers of the Home Arts Association, in commemoration of his twenty-five years' presidency.

Next, through tall, trimly kept Yew hedges, we made our way past the chapel, to the terrace gardens, which face south-east, and, at this spot, are noticeable for the fine, straight-cut Yews marking their outlines. Here, too, the beds



THE LAVENDER GARDEN AT ASHRIDGE.

are edged with Box, and Mr. Robertson explained the scheme of bedding:

"We have no spring bedding, but in summer the front beds are generally filled with Begonias, with a centre of taller plants, such as Phlox and Larkspurs. The Roses, too, used to be very fine; but they suffered as the result of the last two winters, and we have not been able to renew them yet. Climbers on the house walls are a great feature of Ashridge, and just here there are some very fine Clematis, mostly of the Jackmanni type, and Roses like Gloire de Dijon. Vitis Coignetiæ is also good, and colours most beautifully in autumn."

### THE CONSERVATORY.

The conservatory looks out on this part of the terrace, and to save time we went over it before looking at the remainder of the climbers on the house. Here, again, is a structure of imposing dimensions, with plants on a similar scale. A Camellia, twenty feet high, and full of white flowers, faces the entrance, and near by are tall Palms—Seaforthias and Latanias—Dracænas, and other foliage plants. Climbing on the roof at one end is Solanum Wendlandii, which, I was told, bears a profusion of blue flowers; while in the centre Bignonia grandiflora runs up the pillars and across the rafters. A Brugmansia trained against the wall still carries a few of its large, trumpet-shaped, white flowers.

"The large Palms," said Mr. Robertson, "are used for decorating the rooms. When they get too tall for the house they are stem-ringed. This is done every few years. In pre-war times we used to fill this house with Chrysanthemums in autumn, staging them under the taller foliage plants. Taken altogether, we grew eight hundred large-flowering Chrysanthemums, and fourteen hundred of the other sorts. Now we have had only a few."

"What is this striking tree?" I asked, as we came to one at least twenty-five feet high, with dark green, ornamental leaves six feet long and eighteen inches or so in width.

"That is Strelitzia Nicolai, and it is six years old. We cut down the old stem as another comes on. Here is another plant with very remarkable foliage, Musa ensete, one of the Bananas. It is throwing up suckers, and is in a very healthy condition. Though it bears small clusters of fruit, they never come to anything. We formerly had several Orange trees, but there are only two left. On the wall at the back is Camellia fastigiata, which flowers well; and another fine climber is Stauntonia latifolia, which is very graceful."

"How have you managed about labour, and fuel for plants such as these?"

"There is no heat on at present, for the winter so far has been helpful to indoor plants, and this will enable us to husband fuel for the bedding plants. As to this conservatory, it is always kept cool. We used to have three men on for the plants in this and the other houses, but are now reduced to one. There has been little time given here, and the only attention these plants have had has been a good play of water with a hose-pipe twice a week. This has kept the plants clean and in good health."

"You use soft water, of course?"

"No; just the ordinary hard water from the taps. I know soft water is always advised, but that applies, I think, where the temperature is higher. Here, with a low temperature, the plants take no harm, and there is no deposit of lime on the leaves."

### CLIMBERS ON THE HOUSE WALLS.

Coming out again on to the terrace, we passed round to the principal front, where climbers do so well. Magnolia grandiflora has attained a great height, and is clearly suited by the conditions.

"Magnolia Exoniensis is even better," said Mr. Robertson; "and as you see, here are plants with stems two feet through, while one is fully six inches more. They are old-established, and I think must have been planted when this part of the mansion was built, over a hundred years ago. It is the best flowering species; in July and August, when it is in bloom, it makes a pretty sight, and the air is deliciously scented. Stauntonia grandiflora is quite hardy out here, and the Banksia Rose flowers splendidly. No doubt the fact that the house is on a high elevation, so that the soil—which is not heavy—is well drained, has

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something to do with the plants' pulling through the severest winters."

From the terrace splendid views are obtained, through long vistas. One, looking through an avenue of Ilex forty feet high, is especially fine; as is another with choice varieties of hybrid Rhododendrons on each side, backed by Wellingtonias; and I was told that, on the days when the park is thrown open to the public, people come in thousands to see the flowers and roam among the shrubs.

### THE ITALIAN GARDEN.

Farther round the terrace the Italian garden is seen. This is on a large scale, the beds laid out in the design of the Prince of Wales' feathers, with a handsome stone pond in the centre, filled with Water Lilies. A sloping lawn leads down to this garden, and in the foreground, at regular distances apart, are nine Yews, said by experts to be among the finest in England. They are the oldest trees on the place, their age being about three hundred years. As a background, a long row of magnificently tall Limes stands out, breaking the sky-line and throwing into relief the different colours in the beds, as well as filling the air with fragrance in summer. These beds, in many shapes, are edged with Box, and are, of course, laid out in a definite colour scheme. Thus, Mr. Robertson explained, in some of them, nearest the terrace, Begonias in shades of pink are planted; beyond these may be scarlet; farther away are purple, with deep and light pinks for contrast; while at the back, nearest to the Limes, taller plants, such as Rudbeckias, Golden Rods, etc., give yellow shades, which are provided in the front beds by Violas. To avoid any appearance of flatness which might otherwise obtain, Ivy-leaved Geraniums, six feet high, trained to stakes, are dotted about.

Turning aside from the terrace for a moment, we walked through what at one time was the Orangery, but is now housing the Ivy-leaf Geraniums, also large Myrtles and hybrid Rhododendrons in tubs, with other plants requiring shelter in winter. Then, as daylight was fading, we hastened to the lofty Camellia house. The plants are trained on the outside of a hollow square, with a wide path right round it, and from the ground to a height of twenty feet present the appearance of four flat walls of dark greenery. A single plant in the centre, grown as a standard, spreads its branches out umbrella-fashion at the top, joining up with the others.

"This is a beautiful sight when they are in bloom," said Mr. Robertson. "The flowers are in all colours, and are borne in great quantities. I wonder Camellias are not grown more frequently. They give no trouble, and being evergreen are always ornamental. The principal thing to be seen to is watering. They should never be allowed to get dry, or they get unhealthy, and the buds drop."

### SOME FEATURES OF THE GROUNDS.

With the moon high in the heavens, and the sun just sinking, we next started to explore the grounds. Crossing the Italian garden, we made our way towards the Skating Lake. This is a large, shallow piece of water, formed by the overflow from The Cutting, which is seen a little higher up, and serves to drain the grounds. The lake is bordered with square-trimmed Yews, which at intervals rise and form broad steps.

"This is an ideal place for skating," I remarked.

"During the war, until last September, Ashridge has been used as a military hospital, and the soldiers had fine fun in winter on the ice. The Cutting looks very beautiful in late spring, when the Rhododendrons on its banks are in bloom, and their many colours are reflected in the water."

Across the bridge over The Cutting, we come to the fine avenue of Wellingtonias; but turning aside, we entered the Lavender garden.

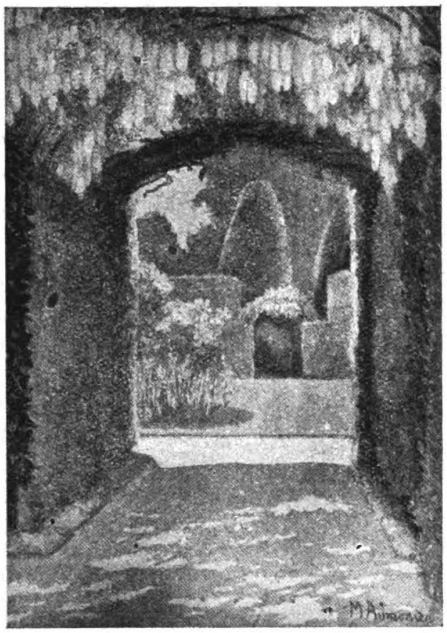
"Here," said Mr. Robertson, "in the borders we have beds of all the old-fashioned medicinal herbs. This is a hobby of Earl Brownlow's, and he is keenly interested in the plants. The Lavender beds, with the old sundial in the centre, have been very fine, but the last two winters killed off many of the plants. However, I hope we shall be able to make it up afresh this spring. The Nepeta Mussini which edges the Lavender beds is always very effective, and gives a mass of blue colour all the summer."

"You have a lot of vase-shaped Yews here, which must give you some trouble to keep so neat."

"We have just managed to keep them in shape. In ordinary times we have two men on constantly, pruning and trimming the trained shrubs and trees. But I now want you to see the Beech bower, outside this garden."

### THE BEECH AND WINTER BOWERS.

"What are its dimensions?" I asked, as we came up to it, and I saw a comfortable-looking shelter, with interlacing branches, now, of course, bereft of leaves.



THE LABURNUM ARCH, ASHRIDGE.

"It is nine feet high, with an elevation of four feet for the roof, and is fifteen feet long and broad. In the summer it is a delightfully cool retreat, and, as you see, it has an aperture cut in the side, so that, sitting here, you can look out to the Lavender garden. When the Beeches were first planted, stakes were driven in to support them, but now they have grown so strong that they support the stakes."

"The winter bower is on a similar scale?" I remarked when we reached it.

"Yes; it is very similar, but the plants are Irish Ivy, which is trained on wire netting supported by iron posts. There are two apertures here. Being evergreen, it is a favourite resting-place in winter."

To describe all the interesting features in this part of the grounds would require too much space, but I must briefly refer to the two immense beds of Azalea mollis, edged with Polyantha Roses; a sturdy, handsome Oak, planted by Queen Victoria in 1823, when she was a child of four; two of the original Wellingtonias, placed here when this tree was first introduced into England; some very good Cedars, including atlantica, Libani, and Deodara; and the circular Rose garden, with large beds radiating from a centre filled with the Polyantha Jessie, and pillars covered with Ramblers. The Roses—of which Richmond, Madame Ravary, Caroline Testout, Coralina, and Madame Antoine Mari are among the best—are ten to twelve years old, and though the beds have not been dug or made up for eight years, the plants bloom splendidly.

From the Rose garden we passed along a path edged by Yews, and came under a natural pergola of Laburnums, which leads through to the American garden, filled with Heaths, Rhododendrons, Azaleas, and other flowering shrubs.

"There is a dazzling display of colour here in May," said Mr. Robertson, "when the Laburnums droop their golden chains, with the Azaleas and Rhododendrons also blending their colours."

There being still much to see we hurried on, by the large rockery, with high banks of Bamboos behind it, and beyond this went through a lengthy grotto, made of the natural flints of the district, and opening out at the other end into a wide cave, affording shelter from the weather.

Farther on we came into another long avenue of Elms, where the damage due to the memorable blizzard of March, 1916, is still in evidence. One tree, seventeen feet round at five feet from the ground, was among the giants that fell on that occasion. Then, turning again towards the house, we stopped awhile to examine some more climbers on the walls, as they were pointed out by Mr. Robertson.

"A very fine thing on this wall," he said, "is the climbing Hydrangea, Schizophragma hydrangeoides. It has thriven here for many years, and is now about twenty feet high. In the summer it carries a lot of bloom. Ceanothus Gloire de Versailles is represented by two large specimens; Tecoma radicans does well; so do Vitis heterophylla and Thunbergii, which have beautiful foliage; and there is an old white Wistaria which gives an enormous amount of flowers."

### TWELVE THOUSAND BEDDING PLANTS.

This ended our moonlight tour of the grounds, and, procuring lights, we next proceeded through the greenhouses, Mr. Robertson leading the way.

"This Beaumontia grandiflora," he remarked, "is a good plant for the back wall. It makes long growths, covering a lot of space, and blooms very well. Daphne indica has not had the attention it requires, but it has flowered very freely. Here is a plant with a forbidding name, but pretty scarlet flowers—Sericographis ghiesbreghtiana. I showed this at the Royal Horticultural Hall a couple of seasons ago, and it was admired by many people."

"Your winter-flowering Geraniums are still excellent."

"Yes; they have made a bright display, but will soon be past their best. I have raised some seedlings of an early variety of Agapanthus, but they have not yet flowered."

"And these cuttings—they are for bedding?"

"We have a large quantity of bedding stuff coming on. We require twelve thousand plants for the beds, without counting annuals, of which we grow a lot. Among these are many scented Geraniums. There is a fine bedding Geranium named Phyllis, which is a better colour and freer in flowering than any other pink I know of. Henry Jacoby and Phyllis are largely used to form the connecting colours between the beds of Begonias. For the vases in front of the house we have Salmon Paul Crampel. We grow various Heliotropes, but I do not like Madame de Bussy, which is a 'miffy' subject, and in my opinion is synonymous with The Speaker. For the bedding we also use a hundred standard Fuchsias seven feet high."

### USEFUL STOVE PLANTS.

"You have some Orchids going here?" I remarked, as we passed into the stove.

"We do Calanthes Veitchii really well, and make up huge tables of them. Cœlogyne

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dayana and Sobralia macrantha are others that make a good show; and there are Dendrobiums gigantea and Dalhousieanum, which still flower well, although they have not been potted for three years, and Cymbidium Lowianum, now in bloom."

"The Amaryllis look healthy and promising."

"One good point about them is that you can force them at almost any time of the year. The Anthuriums here are Veitchianum, crystallinum, and Scherzerianum. Veitchianum throws leaves four feet long. To get it to grow well the stem should be packed closely with sphagnum, and it then throws out roots into this, and makes enormous leaves. We have not many Poinsettias just now, but generally we grow about a hundred plants. They are invaluable for groups for decoration and conservatory work. I get some of them seven feet high, and eighteen to twenty-two inches through; others I grow round the pots, and peg them down as they grow. This keeps them dwarf. Another thing that does well is Eucharis amazonica."

"What is your method with this?"

"I pot it up in heavy loam, as you see, and keep it on the shady side of the house. It is seldom repotted, but is allowed to get pot-bound, and is given plenty of water. I think this treatment prevents it from being attacked by the mite. I also think that light soils are no good for this plant."

#### FUCHSIAS WINTERED IN A BARN.

After noting that the back wall of the stove is covered with Begonia Rex and Maidenhair Fern, and that in one corner stood a huge plant of Crinum asiaticum, with leaves six feet long and stems as stout as a tree, we made our way towards a barn, where Mr. Robertson has housed a number of large plants in tubs.

"These," he explained, "are tall standards of Lemon-scented Verbena (Aloysia citriodorus) and Fuchsias, and also some Hydrangeas. The Aloysias are forty to fifty years old, and the trunks are several inches thick. The growths are cut back in spring, and the plants are stood out on the terrace for summer. The Fuchsias are also very old, and their stems are about four inches through. They remain here all the winter."

"But do they have no light and ventilation?"

"On mild days the door is opened to give them air; otherwise they are shut up in the dark all the time. Two large Aloysias grown as bushes died down, but they broke away again from the bottom; and last year, during very severe frost, four of the standards were lost."

"Then do they not make weak, thin growths?"

"The Fuchsias sprout a little, but as they are cut back close in spring, they do not seem to suffer any harm."

I must not omit to mention that, to increase the national food supply during the war, many hundreds of acres in the park were ploughed up, and sown with wheat and barley; while to give occupation to the soldiers approaching convalescence, space was provided where they could raise some of the vegetables for the hospital.

Before taking leave of Ashridge, I asked Mr. Robertson to give me a few details of his gardening career, to which he replied:

"I started at Abercairney House, Perthshire; then for two years I was at Lady Armistead's gardens at Castle Huntly, Dundee; from there went to Blair Castle, the Duke of Atholl's seat; and next came down south to Mentmore, Leighton Buzzard. Two years later I went as general foreman in the Duke of Leinster's gardens at Carton, Maynooth, and after staying there four years I was appointed head at Lord de Vesci's place at Abbey Leix, Queen's County. While there I replanted all the houses, Vines, Peaches, and so on. I was eight years there, and then came to Ashridge, where I have also been eight years."

W. J. CHITTENDEN.

# NOTES ON SWEET PEAS.

The long-looked-for Peace time has come at last, and with it, I hope, the return of our flower shows, when Sweet Pea growers will again have a chance to show their skill, and specialists will be able to bring forth the new things, which have had little chance in the past three or four years. After the enforced rest, growers should come forth with even more enthusiasm than before. A good way to celebrate the splendid victory of our fighting forces would be to grow the national colours in red, white, and blue Sweet Peas in quantity. In the garden this would serve during summer as a reminder of the great victory which has been achieved. The N.S.P.S. has started the ball rolling as regard competitions by offering their cups at the Show on July 1st, and I should not be surprised to see a good number of entries from small growers. At any rate, judging from the inquiries I get myself respecting Sweet Peas, there is a movement in that direction.

A BORDER OF SWEET PEAS GROWN FOR CUTTING.

#### NOTEWORTHY NEW VARIETIES.

There are several new varieties, which have not been shown outside London, which I would advise growers to try. Mrs. Tom Jones, a bright delphinium blue, is a grand thing, and appears to be a very robust grower. It would make a splendid blue for the national colour set.

Elegance, a delicate lilac-pink, is delightful; so also is Mrs. F. W. Bishop, a lovely cerise.

As a dark violet-blue, Jack Cornwall, V.C., is quite distinct, and, well grown, should be a good exhibition variety.

Alexander Malcolm is quite the best of the novelties I have seen lately. This is a very bright flame, of good size and substance, and is in every way a "topper." Needless to say, it requires shading, as is the case with all orange tones.

Valentine, sent out last season by Mr. Bolton, I was very pleased with this year, and I can recommend it to anyone requiring a lilac-pink. It is very strong, and somewhat resembles Mrs. Hardcastle Sykes, but with a slight shade of lilac running through it which makes it extremely pretty and distinct.

Mrs. Wakefield is another novelty for this year, from Mr. Unwin. I have not seen it growing; but from the description—cream, suffused with pink—and as most of Mr. Unwin's things are good, I expect it is worth a trial. At any rate, I am growing it myself.

Palestine is a good cream-pink, very strong, suitable either for exhibition or garden decoration, and as a market flower is invaluable.

Liberty, a scarlet-cerise, is quite a distinct shade, and as shown by Mr. J. Stevenson last season, was extremely pretty.

#### SOWING THE SEED.

If seed is not already sown, a start should be made early in the New Year. Those who have a warm greenhouse can sow as early as possible in January; but with only a cold frame to raise them in, February will be soon enough. When the plants are large enough to wander, pot them up in medium 60's, and keep them in cold frames until planting-out time, taking care to give all air possible, to make them sturdy and strong.

Those who have sown in the autumn should, by this time, have fine, sturdy plants in 3-in. pots. During mild weather the lights should be off during the day, excepting when it rains, when they should be tilted each end to allow a current of air to pass through, which helps to keep them dry. Damp is more of an enemy to Sweet Peas than frost, and they should always be a little on the dry side during November and December, as during that time they make very little root action. As the season advances more moisture will be necessary. I have several thousand autumn-sown plants in cold frames, which promise well to make good plants. These have scarcely had the lights on at all, excepting for rain, even with five or six degrees of frost. I only have the lights over them, with air on top and bottom. The harder you can grow them in the young stages the better they will be for planting out. My first

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though most of them were rare; but now, largely owing to new species discovered in China, that number must be doubled. And by means of these novelties many wonderful hybrids have been raised, such as Beesiana, Bulleyana, Lissadell Hybrid, Asthore, and various others. I have never seen a garden of Primulas—many different species arranged in a setting of shrubs and trees to make an informal ground plan, and to provide shade where necessary—but it would surely be a delightful and most interesting spot. One objection might be urged against it—though very brilliant in spring, it would be dull at other seasons. Still, it need not be without flowers even in September, for there is one very handsome species, P. Poissoni (somewhat similar to P. japonica), which carries its purple flowers well into the present month. Another species, P. Delavayi, flowers in August, and several do in July, for instance P. pinnatifida, P. secundiflora, P. spectablis, and P. yunnanensis. In June there are many, and from May back to the beginning of March they are in profusion. The whole season, therefore, covers seven months, a good deal longer than for most genera.

#### GOOSEBERRY CATERPILLARS.

September 12th.—Gooseberry bushes are frequently infested with caterpillars, which, if left undisturbed, completely defoliate them. The books to which I have referred on the subject all give the same remedies—hand-picking and dusting with hellebore powder. Both methods are objectionable. Hand-picking is a long, troublesome, and unpleasant operation; and as hellebore powder is poisonous it is not safe to use when the bushes are carrying fruit. None of these objections apply to soapy water containing a dash of paraffin. It costs practically nothing to make, it can be sprayed on in a few minutes, and it is thoroughly effectual. I tried it on some bushes in spring, and it killed all but two or three caterpillars, which were found on the following day and destroyed. Since then the bushes have been quite free from the pests.

#### IRREGULAR COROLLAS AND INSECT FERTILISATION.

September 13th.—I have just come across this statement in Lord Avebury's "British Flowering Plants": "It is probable that all plants with an irregular corolla are fertilised by insects. The advantage of the irregularity is that it tends to compel the insects to visit the nectary in one particular manner, and thus to fertilise the flower." It is remarkable that the botanist who could make that statement—a very keen observer—should not have considered the possibility that the irregularity was actually caused by insects, and have eventually come to the same conclusion as Professor Henslow, that such was the case. That solution clears away an immense number of difficulties, and simplifies a subject which otherwise appears to be extraordinarily complicated. H. C. DAVIDSON.

## *DIPLACUS GLUTINOSUS.*

Diplacus glutinosus is a very pretty plant for the greenhouse. In spring it bears terminal spikes of deep orange or amber-coloured flowers, and small oval leaves. It is closely allied to the Mimulus, but is of a shrubby habit, and may be grown on from year to year. Potted in a light, sandy compost, it will grow freely, and to those who like something different from what is seen everywhere, it may be recommended. The foliage being of a glutinous nature (hence the name of the plant), it is not much troubled with insect pests.

After the plants have finished flowering, they may be cut back, repotted, and placed in a frame for the summer, and taken into the house early in the autumn. R. A. H.

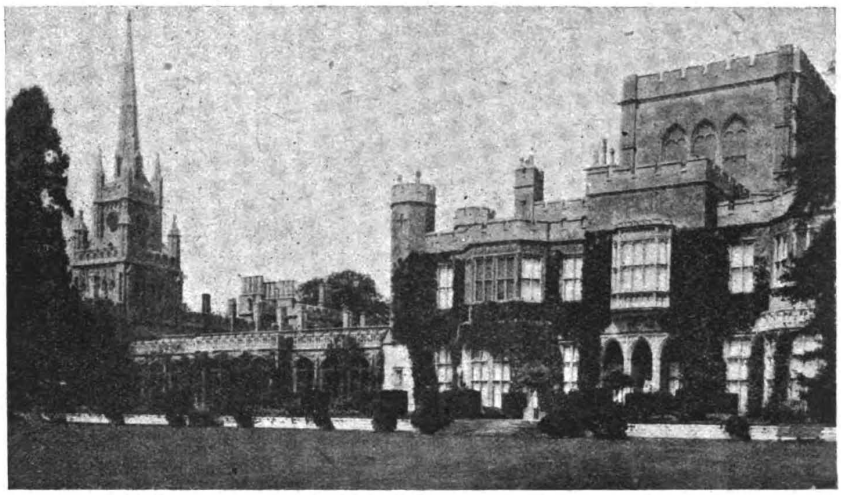
## *FAMOUS BRITISH GARDENS.*

### *ASHRIDGE PARK, BERKHAMSTED.*

*Interview with Mr. D. D. Robertson.*

WHEN I visited Ashridge Park, near Great Berkhamsted, at the beginning of January, I had the somewhat unusual experience of seeing the gardens by night, the moon shining out of a clear sky, while the air was keen, and the ground locked in the grip of frost Vastly different were the conditions under which my second visit was paid, for the time was mid-August, and rains during the previous night had freshened the turf, and given a new beauty to the bedding plants, though here and there one was beaten down. And to see the bedding, which is the most striking feature of Ashridge in summer, was the object of my trip.

"You can now see what we do with the standard Fuchsias, which, when you came in winter, were housed in a shed," said Mr. Robertson, who has been in charge for rising nine years. "They are still in their pots, but are plunged in this border, which, you will remember, leads to the Monks' Garden. In front of the standards we have the hardy Fuchsia Riccartonii."



ASHRIDGE: THE SOUTH FRONT AND TERRACE.

The standards are from forty to fifty years old, and have stems some four inches thick. Here, in this narrow border, under the shade of a wall, they bloom profusely, and are wonderfully effective.

Arrived at the Monks' Garden, a secluded, old-world spot, with a cloistered walk on one side, in front of which is a long, broad border, the predominance of pink and crimson was very noticeable. The garden is sunk, and has a border running all round it; the beds inside are laid out in geometrical fashion, with a Box edging; and four of them, of large size, have heraldic designs, also in Box. The borders were dazzlingly bright, and consisted of fibrous-rooted and tuberous Begonias, of delicate shades of pink, blending harmoniously.

#### TEN THOUSAND SEEDLING BEGONIAS.

"Do you raise all these from seed?" I asked.

"Yes," was the answer; "this is practically a garden of annuals—as, indeed, is the case with all the bedding here. These plants were raised from seed this spring."

"You require an immense number to fill these borders."

"There are many more plants I will show you in other parts of the ground. We raised altogether ten thousand fibrous Begonias."

"And were the tuberous Begonias, which you use for the centres, also raised from seed?"

"Partly; we have one thousand three hundred, and seven hundred of them are this year's seedlings."

"What are the varieties?"

"The fibrous Begonias are Coral Pink, Crimson Gem, and Fairy Queen, a pale pink. We save our own seed, and in a day or two will commence to gather some. They come true from seed, so we have no trouble. Of course, there are variations of shade, but that is no drawback."

"As a foil to the pinks you have four centre beds of blue?"

"They give a pleasing variety, and consist of Heliotropes Lord Roberts and Madame de Bussy, with Clematis trained on stakes and wires a foot or so above the level of the ground."

"You have also used annuals to good purpose in this border," I observed, as we passed along by the cloisters.

"There has been a good display all the summer. As one lot of plants goes off, another comes into bloom, so that we have always a mass of colour. In this border we go in for strong groups of yellow, scarlet, and blue, helped by a few perennials and Dahlias. Along this stretch we have dwarf Nasturtiums in front; then annual Chrysanthemums, single and duble, give us yellow, and we also get this from Coreopsis Drummondii, which is taller. Crimson is got by using Dianthus Heddewiggii and Phlox Drummondii; and Gilia capitata provides blue. The rich scarlet of Dahlia gracilis makes it very effective for dotting here and there, and at the back we have had a nice lot of Sweet Peas, which are past their best

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now, while the annual Sunflowers, single and double, are coming on, and so is the Golden Rod."

### COMBINATIONS OF ANNUALS.

The plants thus indicated were in one section of the border; farther on new combinations revealed themselves, always with the same happy result—a huge mass of bloom in yellow, blue, and red. Among subjects which caught the eye as we passed was the bright scarlet of Alonsoa Warscewiczii, the rich blue of Salvia Bluebeard, and the golden-yellow of Tagetes signata, which made a delightful edging. Hereabouts, too, the soft pink of the decorative Dahlia Delice was very telling, as it rose above the level of the plants around it. Nigella Miss Jekyll proved its value where a sky-blue tone was required; and tall Ageratums gave a different shade amidst another group. No better demonstration of the usefulness of annuals could be desired; and they were so arranged that as one set passed out of bloom another was reaching its best. There were thus no breaks in the continuity of the colour scheme; and, as was pointed out by Mr. Robertson, all the plants were of the easiest culture, gave little trouble in raising, and most could be consigned to the rubbish heap when their period of usefulness was at an end.

Two variegated Hollies, trained as tall pillars, serve to break the lines of the border, and at the end the garden is bounded by a series of arches, on which Hiawatha still rioted, though the other Ramblers were over.

A stroll across a lawn well shaded by trees brought us to the Rose garden, a circular space enclosed by a tall Yew hedge, with stone arches inside. Here the beds, radiating from a centre filled with the Polyantha Jessie, are in blocks of a single colour, a hundred and sixty plants of each variety being employed. Richmond, Caroline Testout, Corallina, Madame Antoine Mari, and Madame Ravary are some of the best; but Madame Ravary, I was told, requires good cultivation and plenty of manure to get it to do well. The arches are clothed with Ramblers.

### HARMONIES IN PINK AND CRIMSON.

From this spot we proceeded to the terrace, where a gorgeous feast of colour was spread out, whose beauty was heightened by the sober green of the square-cut hedge of Yew, with eight taller columns at regular intervals. Oblong beds of fibrous-rooted Begonias, aided by a few tuberous-rooted singles, and edged by dwarf Box, were a blaze of pink, rose, and crimson; and between them came mixed beds of taller plants—pink Malope, blue Larkspurs and Salpiglossis, and Violas as an edging—giving diversity of height. Separating these beds were others filled with Antirrhinum Coral Pink, Stock-flowered Larkspur, and more pink Malopes; and the effect of the rich and glowing tints, as the eye travelled down the long lines, or viewed them through the gaps between the Yews, was indescribably beautiful.

At the back of the terrace just here is the conservatory, and the borders in front, on either side of the doorway, told a similar tale of happy planting and satisfying results obtained from the use of annuals. Let me try to indicate their contents. As an edging there was a pale pink Phlox Drummondii, and behind this came groups of deeper-coloured Antirrhinums and flesh-pink Larkspurs, with Poppies between them. The next line was made up of Dahlia Delice, another ravishing pink; and behind them Sweet Peas were a glorious sight. Then, on the walls, the delightful Clematis Lady Northcliffe gave a touch of deep blue; and in a corner Buddleia Veitchii variabilis was a mass of flowers.

### ECONOMICAL BEDDING.

"By using annuals it is possible to carry out bedding schemes very economically," said Mr. Robertson, in reply to my congratulations. "They are all raised from Sutton's seed, sown in frames, and planted out; and they do away with the trouble and expense of wintering a lot of bedding plants. I plant thickly, and give the ground good cultivation."

Passing along the terrace, and turning to the left, the Italian garden came into view, presenting another beautiful spectacle, chiefly through similar means. The ground plan of the beds—which are on a very large scale—is the Prince of Wales' feathers, worked out in Box; and in the centre is a stone pond containing Water Lilies. Looking down from the top of the sloping lawn, and taking the scene as a whole, we note broad patches of blue, with pale pink close at hand, and behind these come other patches of a deeper shade, with purple a little further off, the colours balancing. Thus at the foot of the steps which give way to the garden we see beds of blue both on the right hand and the left. Next to this, on the right, the bed is pink; on the left, crimson; and beyond these come other shades of pink; and in the distance farthest away from the house the garden is lightened by beds of yellow. For background there is a long avenue of Limes of magnificent proportions. In the foreground, on the edge of the lawn, nine Yews, some three hundred years old, are planted at regular intervals.

Descending to examine the beds at close quarters, I noted that one was made up of Antirrhinums, edged with salmon-pink Dianthus, which continues in bloom throughout the summer, so that there is still plenty of colour between the first and second blooming of the Antirrhinums. In another the plants are taller, and consist of rosy Larkspurs, pink Phlox, Malopes, Dahlias, and Sweet Peas. Another bed is composed of Salvia Bluebeard, Phlox Le Mahdi, and blue Larkspurs, with a white Dahlia dotted through them. As a centre to this bed a Clematis Jackmanni is trained over a pillar seven feet high, tall stakes being used for the Sweet Peas. These flower from top to bottom—indeed, the bed is a mass of colour, not an inch of ground being visible.

ASHRIDGE: BEDDING IN THE MONKS' GARDEN.

### A USEFUL DAHLIA.

A bed of scarlet and orange was very attractive, the orange being supplied by Calendulas, with Antirrhinum Orange King as an edging, and the scarlet by Dahlia Glare of the Garden, a remarkably vivid colour. For the yellow beds annual Chrysanthemums, Coreopsis, Alstrœmerias, Calendulas, Tropæolums, and Solidagoes are the mainstay, and Leptosiphon aureus gives an edging of golden-yellow.

Antirrhinum Bright Crimson combines well with the crimson Begonias and Dianthus Heddewiggi. The Antirrhinums were beginning to go off, but were to be cut over, and would then commence to give a second display.

It will be obvious, from the variety of plants used, that there is no suggestion of flatness about the beds, many, indeed, being quite pyramidal in shape.

Around the edge of the pond stood several tubs of Agapanthus umbellatus, the Blue African Lily, a few of which were in bloom.

### AGAPANTHUS FROM SEED.

"The Agapanthus is always a fortnight later here," said Mr. Robertson, "than it is in London. I cannot say why, unless it is because we are so exposed, and are very high up—six hundred feet above sea level. I have two varieties of Agapanthus, one of which comes into bloom three weeks earlier than the other. It is also shorter and narrower in the leaf, but is just as good in the flower. I have saved seed from it, and now have fifty pots growing on. The plants are only twelve months old, and it will probably be three years before they flower."

One other example of the felicitous use of inexpensive and easily grown plants remains to be mentioned. This was in the borders in front of the private theatre and the Camellia house, and might be termed "a study in blue." On the walls Clematis gave purplish blue, and Stock-flowered Larkspur and Salvia Bluebeard supplied lighter shades, with Violas as an edging. To heighten the effect a few pink Malopes were judiciously placed here and there.

The Camellia house being close at hand, we turned in for a moment to look at the splendid plants, which I described in the account of my former visit to Ashridge. The soil has received a top-dressing of bonemeal and leaf-mould, and, of course, plenty of water is also given, while the front of the house is always kept open.

### A HANDSOME STOVE CLIMBER.

A visit to the greenhouses was not without interest. That old-fashioned but now uncommon member of the Vitis family, Cissus discolor, was particularly noticeable for its handsome foliage, whose many colours baffles description. It is growing in a 7-in. pot, and is trained up a pillar, from which the growths ramble, and hang down in festoons to a length of seven or eight feet. A good batch of Calanthes promises well for flowering in November; and a number of pots of Begonia Gloire de Lorraine and its varieties will also provide colour in the winter. Thunbergia alata was attractive, and so was the climbing Lily, Gloriosa superba.

Outside, in the frame yard, eleven hundred Chrysanthemums of the best varieties were standing, so that there will be no lack of flowers this side of the New Year.

The kitchen garden is some distance from the

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pleasure grounds, and we had no time to get to it, but Mr. Robertson told me the crops all round had been good this season, Peas especially so, in spite of the drought.

"I make the Pea trenches in autumn," he went on; "digging into them plenty of leaf-mould and burnt refuse. This gives the soil time to settle—an important point, for Peas do not do so well when sown in loose soil."

#### ERADICATING AMERICAN GOOSEBERRY MILDEW.

"And the fruit crops?" I asked.

"Good all round," was the reply. "Raspberries were excellent, and Gooseberries a heavy crop. With regard to American Gooseberry mildew, it may interest you to know how I have kept it under. Five years ago the bushes were badly attacked, and I was afraid the lot might have to be destroyed. But I clipped them in early autumn, burnt every bit of the clippings, and covered the bushes with hot lime. In November I cut out all the white wood, and again covered them with lime. At pruning time I cut out every scrap that appeared to be infected, leaving not one suspicious twig. Next year, in June, I pinched out the points, and when the fruit was gathered I summer-pruned closely, and gave more hot lime. This treatment has proved successful, and for the last three years there has not been a spot of disease."

"Have you got back your staff to its normal strength?"

"Not to what it was in pre-war days; and I don't think we ever shall. Then we had a staff of twenty-six; when you were here in January it had shrunk to five. It is now sixteen, including three women."

Ashridge, which is the seat of Earl Brownlow, is built on the site of an old priory, and is among the most famous mansions in England. The grounds are thrown open to the public every Sunday, and on certain other days, and attract crowds of visitors from all parts. The walks are magnificent, and the trees comprise some very choice specimens. The Beeches are especially fine, and there is one, known as the "Queen" Beech, with a clear, straight trunk of eighty feet, while many others are between forty and sixty-five feet. At the end of the two-mile drive, looking from the main entrance, is the Bridgewater column, erected in memory of the last Duke of Bridgewater, a former owner of Ashridge, who did much to improve and develop the canal system of this country. But the features of interest in Ashridge are far too numerous to be described in a single article.

W. J. CHITTENDEN.

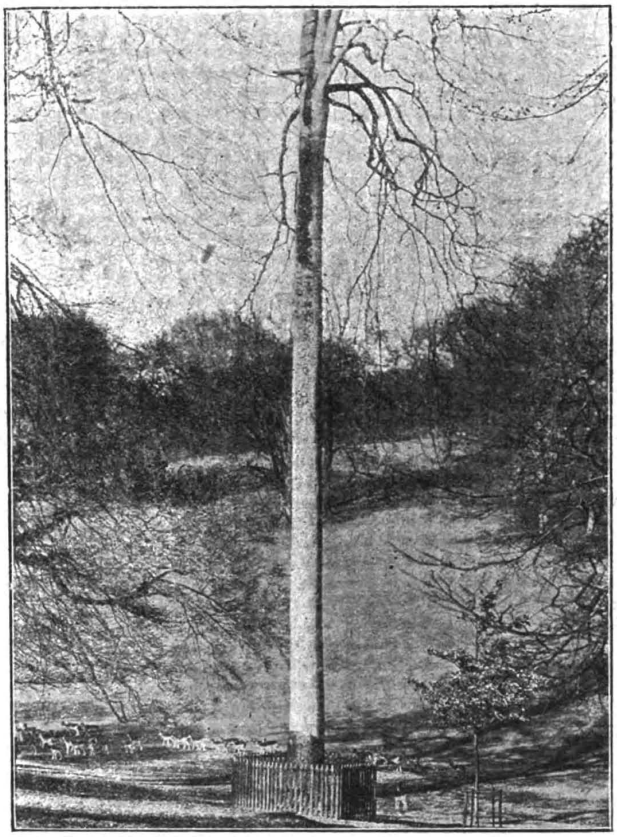
## TRANSPLANTING EVERGREENS.

Evergreens can be moved with care at various seasons, but, all things considered, probably the best time is towards the end of September and the first half of October. The soil works well at this season, and can be brought into the best possible condition to receive the plants with the minimum of trouble. The warmth in the soil is also an important factor to be taken into consideration, and one that will accelerate the production of root fibres from the lacerated parts. Although the greatest care be exercised when lifting, some of the roots get broken, and the sooner the damage is repaired, the greater is the prospect of the early re-establishment of the subjects being dealt with.

When moving plants of fair size, it is desirable to secure a ball of soil round the roots. In light, sandy soil this may not be possible, and the greatest care should be taken to secure as many roots as possible, avoiding all unnecessary injury in lifting. The preparation of the ground if of importance. It should be well dug or, better still, trenched, if a number of plants are to be used, and where a single specimen is to be planted, the soil should be well prepared considerably beyond the space occupied by the roots when laid out straight. The practice of laying large stones, where available, over the roots is useful in keeping the plants steady, and at the same time maintaining the soil in a moist and cool condition. After the plants are in position, a good watering will be necessary to solidify the soil as well as to supply the roots with moisture. Watering must not be neglected later if required, both at the roots and overhead by means of the syringe.

High winds often being prevalent, staking may have to be resorted to, in exposed positions especially. If the plants are allowed to become loosened in the soil, as they sometimes are, all the previous trouble taken may well be in vain, and attention to this important detail should not be postponed. The depth to plant is usually plainly indicated by the mark of the soil level on the stems, and in no case should the latter be buried deeper than they were in their former quarters. Too deep planting, in many instances, has been the cause of total failure.

J. C. CHING.



THE QUEEN BEECH IN ASHRIDGE PARK, WITH EIGHTY FEET OF CLEAR STEM.

## THE PLUME POPPIES.

There are three good species of the Bocconia or Plume Poppy under cultivation, each being of perennial duration, hardy, strong-growing, and increasing yearly in bulk and beauty. The flowering period lasts from June to September, and ornamental fruits or seed-pods are thereafter formed, which give an additional period of utility. Plume Poppies have an airy, light, and graceful appearance, which makes them useful for planting amidst heavier subjects of denser growth. The stems are considerably over six feet in height, and are covered with a wealth of beautifully-shaped, glaucous foliage, above which rises the mass of inflorescence, of a feathery appearance, which accounts for the popular name.

Associated with Hollyhocks, Delphiniums, and other tall-growing plants, the Bocconia (or Macleaya) have an excellent effect. They require, however, plenty of room, in order to show off their beautiful foliage. Although thriving in any good soil, they are brought to perfection when planted in a light loam, with plenty of manure, and given copious waterings in dry weather. They may be planted in either spring or autumn, and are readily increased by means of seeds, cuttings, or root division.

#### SPECIES AND VARIETIES.

Bocconia cordata, a native of China, is undoubtedly the best species. It is a mystery why this typical plant is not better known, for it has been with us for considerably over a century! It possesses large, lobed, heart-shaped leaves, green above, and whitish beneath, and its tall stems, rising four to six feet—sometimes more—bear panicles of airy, creamy flowers. A clump of these lovely subjects isolated upon the lawn, or amongst other herbaceous perennials, or rising from between low-growing shrubs, is a magnificent sight, giving the appearance of clouds hovering over the surrounding greenery.

There is a variety of this plant which may prove to beat the type in beauty and value. This is B. carnea, the stems and flower-stalks of which are delicately tinted with carmine, and the flowers are just flushed with pink.

B. cordata Geraldi is yet another variety of recent introduction. It has large, ornamental, silver-grey foliage, large heads of silvery-white flowers, followed by crimson-brown seed-vessels. A grand plant, six feet high.

A yet bolder plant is B. microcarpa, and most suitable for sub-tropical gardening and large borders. The foliage is of a pretty grey-green shade, and it throws up handsome spikes of creamy-white or buff flowers. H. A. DAY.

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N. Bernardi from other parts of the Pyrenees is of larger size, and from the Maritime Alps earlier to flower.—C. Wolley Dod, *Edge Hall.*

**Royal National Tulip Society.**—A meeting of growers and exhibitors of the Tulip took place at Manchester on the 3rd inst., when it was resolved that the annual exhibition should take place at the Botanic Gardens, Manchester, on Wednesday, May 28, the last day of the great Whitsun show. The prospects of a fine display are undoubtedly good, but much will depend upon the character of the weather during the next fortnight. The Turner Memorial Trustees offer prizes for twelve distinct named Tulips, six rectified and six breeders, and for six distinct Tulips, three rectified and three breeders.

**The Pearl Bush** (Exochorda grandiflora) is one of the most beautiful of deciduous shrubs, and finely in bloom now in the garden of Mr. G. F. Wilson at Wisley. It is smothered at this season with large white flowers, and when standing by itself, as at Wisley, its graceful contour, dense growth, and spreading habit are at once apparent. When fully grown it should measure about 10 feet high and as much in width, requiring slight shelter and if possible a rich loamy soil. We frequently find the Pearl Bush nailed against a wall, and a very pretty feature it makes when in full bloom, but thus trained we lose its characteristic elegance and freedom, its great charm when so placed as to be free from neighbouring shrubs.

**Trillium grandiflorum** is very beautiful at the High Beech Nurseries of Messrs. Paul and Son, Broxbourne. It has always been recommended to grow this gem in a damp shady spot, really in a bog with an almost north exposure. At High Beech, however, where the soil is a light sandy loam, Trillium grandiflorum in an exposed southern position is growing more luxuriantly, flowering more freely, and bearing larger individual blooms than I have ever before seen. One cannot help thinking of the long established treatment recommended for this plant, viz., shade, damp, and peaty soil. How few would ever think of going directly in the face of Nature as it were, and very likely in some cases if they did so they would fail, but here is a case of a plant luxuriating in a condition quite opposed to that in which it is found wild.—K.

**Two beautiful climbers** for a conservatory are Lonicera sempervirens and Habrothamnus Newelli, both of which cover a wire arch in the conservatory at Gunnersbury House, Acton. The Honeysuckle makes a charming climber for a cold house, covering trellis or pillar with a pretty and abundant glaucous-coloured growth, brightened now with a mass of scarlet flowers. It continues in bloom many weeks. Quite different, but just as beautiful and more showy, is the Habrothamnus, of which a coloured plate was given in The Garden for August 4, 1888. It is not so common as H. elegans, but even more desirable, as the flowers are rich crimson, produced quite as freely, and the growth is also as vigorous. This must be grown indoors, but the Honeysuckle will live in the open air if against a warm and sheltered wall. At Kew it is given a wall, and never fails to flower.

**Hardy flowers from Newry.**—Herewith a few Newry flowers for your inspection. Aquilegia viridiflora has a quiet beauty of its own, and is seen to much better advantage cut and placed in a crystal glass than on the plant. A. oxypetala is distinct and pretty; it only grows about 6 inches high, and the association of buff-yellow and purple is very pleasing. Allium triquetrum is a very pretty free-flowering species, and will grow very well in thin grassy places; the slugs, however, when inclined to vary their diet sometimes make a meal of it. Iris cristata is quite a weed here, growing most luxuriantly, so strong that, as you will see, many of the spathes are two-flowered. Phlox canadensis stands quite alone in this group, from a colour point of view—a distinct and unusual slaty blue. It grows and flowers freely when the slugs will let it alone; they are, however, very fond of it. Primula rosea splendens is much the brightest I have seen; it was raised from P. r. grandiflora, but leaves that variety far in the rear, so far as colour goes. Menziezia empetriformis should be much oftener met with than it is, as after Erica carnea it is the first of the Heathworts to flower; the habit is neat and it is very free blooming. Cytisus ratisbonensis is a very good early flowering shrub, forming a neat bush 3 feet or so high, now densely laden with pale yellow flowers. Prunus utahensis reminds one strongly of the Sloe, but the habit is quite different, being erect and slender branched; it flowers, as you will see, in the most profuse manner right away to the topmost bud.—T. Smith.

*** An interesting gathering of hardy flowers.—Ed.

**Heuchera sanguinea**, undoubtedly one of, if not the most useful introduction of recent years, is now blooming on sheltered spots on the rockery, and most welcome it is, even with the bright array of Tulips and Anemones. Its graceful habit, numerous intense crimson flowers, and easy culture mark it as a plant for the million. Anyone can manage H. sanguinea with a yard of garden, the only stipulation being that the old plants should be lifted annually, broken up into small pieces and replanted. We have a batch of seedlings now coming into flower from seed saved last year, and a more wretched lot of plants we have never seen. None of the seedlings have the intense colour of the type, all being of a pale washy pink. One only has larger flowers; they are nearly as large again, and the pale almost obsolete inner segments are largely developed, but do not improve the appearance of the new flower. Increase by division, and leave seed alone in the case of H. sanguinea.

## OBITUARY.

**Mr. James Flood.**—A wide circle of friends will hear with sincere regret of the death of Mr. James Flood, and a familiar face will be missed at the London exhibitions and meetings. Few men were better known in the trade, and his connection with the advertising department of The Garden, extending over many years, brought him into contact with a large number of horticulturists, whom his kindliness of heart and good nature made in many cases firm friends. Mr. James Flood was born in 1837 in the Royal Botanic Gardens, in the formation of which Mr. Robert Marnock was assisted by his father. Through his connection with the Royal Botanic Society he was appointed one of the North Australian Boundary Expedition, which set out from Liverpool in the year 1855. He returned from Australia to assist Mr. Marnock in the management of the exhibitions at Regent's Park, which he left in 1872 to join The Garden, with which he has been associated ever since. His death, although somewhat sudden, was not entirely unexpected. Those who were intimately acquainted with him knew that for at least the past two years his health had been indifferent. On Friday afternoon, the 2nd inst., he was, in the office of The Garden, seized with a stroke of paralysis, and never spoke afterwards. He remained unconscious from then until the following Sunday morning, when his death occurred. The funeral took place on Wednesday last at the Marylebone Cemetery, Finchley.

**Mr. Joseph Robinson.**—Recently there died at Slough this well-known florist, formerly of Pimlico. Between 1840 and 1858 he was a most successful cultivator of Fuchsias, Chrysanthemums, Pelargoniums, Verbenas, &c., and took many first prizes and medals at the great horticultural exhibitions held in London. It was while gardener to Mr. James Simpson, Thames Bank, Pimlico, that he made a foremost name for himself among contemporary florists. He will be remembered by many as the raiser of Robinson's Defiance Verbena, a scarlet-flowered variety of vigorous growth, that was grown for many years for bedding. The stock was purchased by the late Mr. Charles Turner, of Slough, and distributed by him. Joseph Robinson was one of the founders of the National Floricultural Society in 1851, and remained a member of the committee and one of its censors until its dissolution in 1858. His services were much in request as a judge at flower shows. Leaving Pimlico about 1858, he went to reside at Slough, where he died at the age of seventy-eight years.

**Mr. James Cheetham.**—Quite recently there died at Rochdale this old florist of many years standing, a cultivator of Auriculas and Tulips, among other subjects, to the last. James Cheetham distributed that fine grey edged Auricula Lancashire Hero, but he was not the raiser of it. That honour belongs to Robin Lancashire. It was first shown by the raiser in 1846 at Rochdale, where it was placed second to a much inferior variety, Grimes' Privateer. The Rev. F. D. Horner has put the incident on record in the following words: "Lancashire then had eight or ten plants of this seedling, and hastily sold all for a trifling amount. He offered a great deal more to get them back, but could not have them. From the first purchaser the variety passed to James Cheetham, by whom it was eventually sent out. But it is truly Lancashire's Hero, and no name but that of Robin Lancashire should be associated with this flower. It is the noblest type of the Auricula, and at its best there is no grey better."

**Alderman Daniel Woolley.**—On Saturday, May 3, there died at Stockport this well-known Tulip grower and exhibitor. He was in business as a druggist and seedsman, and his favourite flower was the Tulip, of which he was generally a successful exhibitor at the Royal National Tulip Society's meetings. It is very singular that he should have died on the very day of the meeting of the Tulip growers at Manchester to settle the date and arrangements of their next show at Manchester.

### RAINFALL DURING 1889.

| Month. | Total depth. | Greatest fall in 24 hours. | | Number of days on which ·01 or more fell. |
|---|---|---|---|---|
| | Inches. | Depth. | Date. | |
| January ... | ·64 | ·20 | 12 | 10 |
| February ... | 1·22 | ·30 | 6 | 15 |
| March ... ... | 1·05 | ·45 | 7 | 10 |
| April ... ... | 1·94 | ·32 | 24 | 18 |
| May ... ... | 3·80 | ·78 | 11 | 16 |
| June ... ... | 1·92 | ·72 | 9 | 5 |
| July ... ... | 2·51 | ·80 | 12 | 14 |
| August ... | 2·77 | ·64 | 11 | 18 |
| September... | 2·79 | 1·05 | 24 | 12 |
| October ... | 4·03 | ·61 | 22 | 23 |
| November ... | 1·55 | ·42 | 3 | 9 |
| December ... | 1·28 | ·33 | 21 | 11 |
| | 25·50 | | | 161 |

—P. G, *Bury St. Edmunds.*

**Fagus antarctica.**—Can anyone either tell me where to procure a specimen of this rare shrubby tree, or give me one himself? Something equally rare can be given in exchange.—A. D. Webster.

**Achlys triphylla.**—Will you kindly tell me to what family this plant belongs, also colour and kind of flower. It grows near Victoria, in Vancouver Island, and probably in many other places. The leaf is sweet-scented when dry.—B. C., *Leytonstone.*

*E. M. E.*—Potato Magnum Bonum.

**Names of plants.**—*T. May.*—The Narcissus is one of the Tazetta varieties, probably Bazelman major, and the other plant, Polemonium cœruleum, the common Jacob's Ladder.——*R. Toad.*—Utterly impossible to name. Specimens shrivelled up. Kindly send again. ——*H.*—Epidendrum cochleatum var.——*J. F.*—1, Orchis Morio var.; 2, Alkana orientalis; 3, Cymbidium albucæflorum.——*A. Dimmick.*—Sedum acre(?); send leaf. —— *Cotyledon.* — Saxifraga Huetti. —— *W. J. M.*—Odontoglossum crispum; Ferns next week. —— *Mrs. Mansel.*—Staphylea colchica.—— *George Wallon.*—Colegyne ocellata.——*Jas. Corbett.*—Next week.——*W. Connelly.*—1, Armeria cæspitosa; 2, Centaurea montana var.; 3, Dielytra cucullaria; 4, Aubrietia deltoidea; 5, Gentiana acaulis; 6, Iberis sempervirens; 7, Narcissus Tazetta; 8, not recognised; 9, Centaurea montana, white var.——*Inquirer.*—Oncidium sphacelatum.——*Mrs. Layard.*—Tulipa florentina.

scarce, some manure and leaves are mixed thoroughly together and put round the frames, so as to afford them a gentle heat, which will bring the Lettuces along at a steady rate. As to varieties, All the Year Round and Neapolitan stand this kind of treatment better than any other. Another method I have adopted is to prick out a large bed of Lettuces on a south border, and place three light boxes over them when the weather gets cold enough to make such protection desirable. I have also taken up and tried to force such hardy varieties as Hicks' Cos and Bath Cos, but with no good results. The best way is to get an early supply of these Lettuces, and put a lot of them out in the autumn at the foot of a south wall. They do not interfere with the wall trees, and one can keep aphides in check by a little watching, and the plants will take care of themselves till the time for tying them up arrives. We are now cutting nice Lettuces from the south wall treated in the above manner. *W. A. Cook, Compton Bassett.*

EPACRIS.—The present is a good time to prune the late-flowered plants of Epacris, the earlier having been done some weeks since. Growth usually begins at this late period before the bloom is quite over, and it is therefore best not to wait, but shorten back each shoot individually, leaving the spurs about an inch in length; and in some cases, where the heads of the plants are thick, it may be necessary or advisable to thin out some of them, especially those that are weak, which will have the effect of letting the light into the head. The next thing is to afford the plants some slight degree of warmth, say 50° to 55°, and keep them close for a few weeks, and syringe them occasionally. As soon as growth has recommenced generally, they are ready for shifting into pots that have just room enough to allow of a little fresh soil being worked in round the ball. This should be the best fibry peat, broken up somewhat roughly, and mixed with a fair quantity of sharp sand. The drainage, an important point, should consist of finely broken crocks, an inch in depth, placed over a large crock, covering the hole, and on them a sprinkling of moss. The fresh soil must be rammed hard, as it is very important that the soil be made as firm as possible, or the water passes through too quickly, and the exceedingly fine hair-like roots will not be able to live. As soon as potting is complete, a good soaking should be given, and the plants again placed where they can be favoured with moisture and warmth as before, and as soon as growth is complete, and become a little hardened, the plants will be benefited by being stood in a sheltered, half-shaded place out-of-doors, where they may remain till the autumn, small plants being plunged in coal-ashes. The miniata or climbing varieties should not be cut back, but simply thinned, and loosely trained to neat stakes, and such plants form splendid specimens, that are very beautiful when in full bloom. *J. S.*

ASPARAGUS AS A PILLAR PLANT.—Mr. Hudson has growing in a cool-house at Gunnersbury, A. tenuissimus and A. plumosus nanus as pillar plants, and effective plants they are in that position. As a plant to cut the foliage from, the former is certainly the better, the finely cut leaves being good for intermingling with flowers, and especially white ones, in vases, epergnes, &c.; but for grace when growing, the latter is the finer, the leaves on plants of 4 or 5 feet in height standing out almost horizontally, and the point of each leaf droops sufficiently to take off all appearance of stiffness. *E. M.*

JAPANESE CONIFERS.—I have been studying these in their native forests with Dr. Masters' paper on the subject, and have been fortunate enough while travelling in Yesso and northern Japan to get a plentiful supply of cones. I send you photographs of Abies sachalinensis, A. Veitchii, and A. Mariesii, which are as good as species can be. There are five species already described, to which I shall add a sixth. *H. Mayr, Tokio, Japan.*

CRINUM PURPURASCENS.—Dean Herbert did not include Crinum purpurascens in his stoloniferous section because it was not what he considered a truly stoloniferous plant. According to his view, a stolon was a creeping underground sucker which formed a bulb after coming to the surface. Had he been called upon to define the habit of C. purpurascens, he would have said "bulbulis valde prolifera." Crinum erubescens is a good example of the stolon bearing Crinums. *R. T. C.*

# SOCIETIES.

## THE BRITISH FRUIT GROWERS' ASSOCIATION.

The Executive Committee of the above Association held a meeting in the Horticultural Club room, Hotel Windsor, on May 1, T. Francis Rivers, Esq., in the chair. A number of members having been elected, the Hon. Secretary announced that Mr. Shirley Hibberd had consented to read a paper on the "Origin of the Cultivated Strawberry" at the June meeting. The proposed report on the "Present Condition and Prospects of Fruit Culture" was discussed at some length, and letters were read approving of the scheme. The Duke of Bedford sent a cheque for £25, and Earl Fortescue wrote as follows:—"I heartily wish you success in your work. I have long been of opinion that fruit culture may be largely extended in Great Britain and Ireland with advantage to the owners and occupiers of land, and to the general public. Your Association has been rendering a real public service both by directing public attention to fruit culture for profit in this country, and by helping to dispel the erroneous idea too freely circulated respecting the enormous returns obtainable from a small capital employed in fruit cultivation. Your report truly observes that much harm has been done by ill-informed advisers, for fruit growing cannot be made to pay a fair profit without practical knowledge of the work, starting with a carefully considered scheme, and sound judgment in carrying it out." A sub-committee was appointed to prepare a scheme to deal with the matter.

Mr. L. Castle submitted a note upon Paris Green as an insecticide for special application to fruit trees, and described some experiments. The strongest mixture of this poisonous substance appeared to have no direct effect upon caterpillars, and it is only when it is lodged on the surface of the leaf and consumed by them that it becomes destructive. It had little or no effect upon the leaves as tried, and, except when the mixture is not properly stirred, there seems little danger in this respect. Experiments were also tried upon plants in pots, to ascertain if any ill effect was produced by the Paris Green passing through the soil to the roots; but the plants were quite uninjured, and, being insoluble, it is not taken up by the roots. It was mentioned that Miss Ormerod had kindly sent much information upon the matter, including her recent "Report upon Injurious Insects." A large fruit-grower also wrote as follows:—"We have a plentiful crop of caterpillars; we are, however, vigorously attacking them with Paris Green, London Purple, and Quassia. We can hardly determine yet which will answer best, but the Quassia appears to be quickest in its action, as it kills by contact; but with the other two you have to wait until they have consumed the poison."

## THE SCOTTISH HORTICULTURAL ASSOCIATION.

The ordinary monthly meeting of this Association was held on the 6th inst. in the hall of the Young Men's Christian Association, Edinburgh, Mr. Morrison, Vice-President, in the chair. A paper was read by Mr. W. Sutherland, entitled "A Popular History of the Potato," which elicited an interesting discussion.

Some interesting exhibits were on the table. Mr. Henderson, Clermiston, exhibited a stand of twelve blooms of Niphetos Rose, cut from a plant three years old, carrying seventy other similar blooms, and which has been flowering freely throughout the winter. The flowers exhibited were remarkable for the great size and substance of their petals, several of the buds measuring 4 inches in length. A Cultural Certificate was awarded in recognition of their excellence. The same exhibitor also showed a fine spike of Digitalis purpurea in flower, with excellent foliage attached, showing that it was amenable to forcing, and suggesting its usefulness in that way, along with the white variety, for the decoration of the conservatory in spring.

Mr. Calder, of Calderbank, Trinity, showed a very distinct Rhododendron, named Mrs. Calder. It is the result of a cross between R. Edgworthii and R. formosum, again intercrossed. The flowers are large, white, prettily fringed on the margin, and deliciously fragrant. It was awarded a First-class Certificate. From Mr. Calder also came a fine pair of plants of Heuchera sanguinea from the greenhouse, well-bloomed, fresh, and attractive.

Mr. Lindsay, Bonnington Bank House, showed a good example of Vallota purpurea major, which was much admired.

Mr. Grant, St. Leonards, Dunfermline, exhibited a specimen Masdevallia Houtteana, so well bloomed, that it was awarded a Cultural Certificate.

Mr. Morris, Trinity Lodge, brought a series of varieties of Rhododendron hybrids between Sikkim and Bhootan species, all cut from the open. They are the result of experiments made by the late Mr. Anderson Henry, are very distinct, and in most cases beautiful, but obviously better adapted to the greenhouse or winter garden than the open in our climate. Mr. McMillan, Trinity, also showed some beautiful greenhouse Rhododendrons in truss.

Messrs. Laing & Mather, Kelso, exhibited plants in bloom of Messrs. Linden's new Souvenir de la Malmaison Carnation, Madame Arthur Warocque. The plant is compact, dwarf, freely branching in habit. The flowers are deep rich red, and freely produced. It was awarded a First-class Certificate.

# Obituary.

JAMES CHEETHAM.—Two men of some mark among the Northern florists have recently died. One is James Cheetham, who died at Rochdale, a few days since, at an advanced age. For many years Cheetham was a florist of note, though scarcely in the foremost rank, growing Auriculas, Polyanthus, Tulips, and other things. He was somewhat prominently known in connection with old Robin Lancashire's magnificent grey-edged Auricula Hero. It was first shown by Robin at Rochdale, in 1846, and in the class competition was placed second to Grimes' Privateer, a variety much inferior to it. In great grief at his disappointment, Robin sold his stock of Hero—some eight or ten plants—for a small sum, but afterwards wished to buy it back, but could not do so. The purchaser sold it to Cheetham, who sent it out as Cheetham's Lancashire Hero; and now, nearly a half century afterwards, it remains still one of the best grey-edges in cultivation. In common with some other light-mealed grey-edges, it will sometimes come green-edged; a young plant will sometimes throw a green truss, or an old plant, if the truss becomes bare in December or January. Two or three plants of Lancashire Hero in its green form were shown at the Royal Aquarium on the 29th ult.

MR. ALDERMAN DANIEL WOOLLEY, of Stockport, was for many years in business there as a druggist and seedsman. Tulips were his great hobby, and he was generally to the fore on the occasion of the annual exhibition of the Royal National Tulip Society, and at the shows held in and round Stockport. Mr. Woolley took an active part in local affairs, and had been a member of the Corporation of Stockport for a considerable period. *R. D.*

JAMES FLOOD.—Many of our readers will learn with regret of the death on May 4 of Mr. Jas. Flood in his fifty-second year. The deceased was a frequent attendant at all the large Metropolitan and Provincial horticultural exhibitions, and had a wide circle of friends. His birthplace stood on land which is now Regent's Park; and his father and he assisted the late Mr. Marnock in the laying out of the Royal Botanic Garden of London, and for some time afterwards. He was buried at Finchley Cemetery on Wednesday, May 7.

JOSEPH ROBINSON.—The recent death at Slough of Mr. Joseph Robinson removed from our midst another of that band of florists who, as cultivators and exhibitors, made floriculture so famous forty and fifty years ago. To many of the present generation of florists his name will scarcely be known; but the records of the exhibitions of the Royal Botanic and Royal Horticultural Societies, as given in the *Gardeners' Chronicle* between 1840 and 1858, show that both as a cultivator and exhibitor of Pelargoniums, Chrysanthemums, Verbenas, &c., he

achieved great successes. He was a contemporary of William Barnes, James Cutbush, William Holmes, James Ivery, F. R. Kinghorn, C. Ledgard, C. P. Lockyer, A. Parsons, John Salter, George Smith, R. Stains, C. Turner, and others, who in their day covered the metropolitan district with a network of floricultural societies, and a great impetus to popularising the leading florists flowers.

Born at Chelmsford, in February, 1811, his early associations with gardening are not known; but it was while gardener to James Simpson, Esq., Thames Bank, Pimlico, that he made his mark on contemporary floriculture, taking many medals, 1st prizes, &c., at the above-named exhibitions, and at others held within the area of the metropolis. He raised a good many new florists' flowers, but is best remembered as having produced Robinson's Scarlet Defiance Verbena, a vigorous growing bright-coloured bedding variety, that was largely grown, and possibly may be found in some collections to this day. The stock of this Verbena was purchased by the late Mr. Charles Turner for the sum of £20, and distributed by him.

The *Florist* and *Garden Miscellany* contain some articles from his pen. On leaving Pimlico, about 1858, he went to live at Slough, and engaged himself in laying-out work under Mr. Charles Turner. Some years ago he retired from active life. About eighteen months before his death, his health began to fail him, and it gradually declined until he died in calmness and peace. He outlived most of his fellow-workers in the same field, but there are some who yet cherish his memory, and who will hear of his death with regret. *R. D.*

## VARIORUM.

**Essentials to Success in Horticulture.**—Professor L. H. Bailey, late Horticulturist of the Michigan Agriculture Experimental Station, has given *Ten essentials* to success in Horticulture, which appear to be as applicable to the Old World as to the New, of which the following is a summary:—

1. The first condition is the man—a thinking man, one who knows his market as well as his orchard; who can reason justly from cause to effect. Good brains are as important as good land.

2. The second consideration is the land; not necessarily that which will grow the most, but rather that which will grow the best, the highest coloured, and best quality of fruit.

3. Culture.—Crops need culture. Good cultivation consists not so much in digging and ploughing deeply, as in stirring often. This keeps the soil soft, moist, and pliable.

4. Manure, and lots of it.—The best is stable-manure, applied to the land as fast as made. Put it on the ground in the autumn. Do not compost stable manure, but keep it level and moist in broad low clamps. It will be all the better if kept shaded. Compost is good, not for the stable manure, but for miscellaneous refuse, leaves, garden rubbish, lawn-mowings, &c. A compost pile should be forked over two or three times a year.

5. Location.—High grounds are best for fruit, not because they are wind-swept, as some people erroneously suppose, but because they drain the cold air down and away; hence "protected" elevations are the best. A windbreak should not be so thick as to absorb the moisture in the atmosphere. It should be planted far enough away, so as not to interfere with, or retard the growth of, the young trees. The use of Beech and Maple trees are advised for windbreaks.

6. Varieties.—For this it is necessary to study the market.

7. Marketing.—Study tasty, effective, and honest packing.

8. Pedigree is as important for fruit as for horses or cattle, as it determines the colour, size, and quality, of our products.

9. Succession of crops, applying especially to vegetable growing. Many of those come off early, so that another crop can occupy the ground, viz., Radishes, Turnips, Celery. Thus, hotbeds may serve successive uses, and a good portion of our capital be turned several times a year.

10. Market facilities.—The gardener must adapt himself to the markets, as they will not adapt themselves to him. If far from market, that must be grown which can be cheaply transported, and which carries a good deal of value in small bulk.

**The Weeping-Tree Mystery.**—Prof. Herbert Osborn has called our attention to an article in the Dallas (Texas) *Morning News* of October 9, in which a very well written and humorous account is given of the solution by the reporter of that paper of the mystery of the so-called "weeping-trees," reports of which from Grayson County, and other parts of Texas, are said to have "set the State agog with various explanations of the phenomenon, ranging from the superstitious credence of the supernaturally inclined to the positive denial and derisive laugh of the constitutionally sceptical." The brave reporter, however, upon the discovery of one of these remarkable trees in Dallas, laying aside all superstition, climbed courageously up the trunk, and discovered that the tears were shed by a multitude of small insects "of dark green colour, with gold under the wings, which adhered to the bark, and scampered about when disturbed, and flew away when pressed too closely." Prof. G. W. Curtis, of the Texas Agricultural and Mechanical College, secured specimens, and sent them to Prof. Osborn, who recognised them as the common little leaf-hopper, Proconia (Oncometopia) undata, which we have referred to in previous writings, and on pp. 53 and 54 of vol. i. of *Insect Life*, as occurring upon the Orange in Florida, and upon Cotton plants in other Southern States, and which we have there stated is remarkable for the distance to which it ejects drops of honey-dew. We frequently met with this species in the Cotton fields in the summer of 1879, and noted the extraordinary abundance of the secretion. Prof. Curtis, in his letter to Prof. Osborn, stated that in Dallas they made the tree present a decided appearance of weeping quite profusely, the drops being small, but coming quite thick and fast. Each insect would eject a drop at intervals of two seconds during a period of several minutes, and would then stop for a little while. *Insect Life.*

## THE WEATHER.

### THE PAST WEEK.

The following summary record of the weather for the week ending May 3, is furnished from the Meteorological Office:—

"The *weather* has been very fine and bright over the greater part of the kingdom; in Ireland and the extreme north and west of Scotland, however, the conditions have been rather showery and unsettled. Thunder and lightning occurred in different parts of the country on Saturday.

"The *temperature* was low during the early days of the period, and subsequently the daily maxima became high, although the minimum continued rather low. The average for the week has varied from 1° above the mean for the time of year in Scotland to 2° and 3° below it in 'England, N.E.,' and 'England, E.' The highest of the maxima were generally recorded on Saturday, when the thermometer rose to between 63° and 67° in Scotland, 65° and 67° in Ireland, and to between 66° and 71° over England. The lowest of the minima, which were registed on irregular dates, ranged from 28° in 'Scotland, E.,' and 'England, S.W.,' and 29 in 'Scotland, W.,' and 'Ireland. N.,' to 35° in England, N.W.,' and 40° in the 'Channel Islands.'

"The *rainfall* has been more than the mean in Ireland, and especially over the northern parts of the country, but less over Great Britain; in the principal Wheat-producing districts the fall was trifling.

"*Bright sunshine*, though very prevalent, has been less so than it was last week in Ireland; over England and Scotland, however, a very decided increase is shown. The percentage of the possible duration varied from 35 in 'Ireland, N.,' to 60 in 'England, S.,' 64 in 'England, E.,' and to 74 in the 'Channel Islands.'"

[By the term "accumulated temperature" is meant a figure representing the aggregate amount, as well as the duration, of the excess or defect of temperature above or below 42° Fahr. for the period named; and this combined result is explained in Day-degrees—a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| Districts. | Temperature. Above (+) or below (−) the Mean for the week ending May 3. | Temperature. Accumulated. Above 42°, for the Week. | Below 42°, for the Week. | Above 42°, difference from Mean since Jan. 1, 1890. | Below 42°, difference from Mean since Jan. 1, 1890. | Rainfall. More (+) or less (−) than Mean for Week. | No. of Rainy Days since Jan. 1, 1890. | Total fall since Jan. 1, 1890. | Bright Sun. Percentage of possible Duration for the week. | Percentage of possible Duration since Jan. 1, 1890. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | 10ths Inch. | | In. | | |
| 1 | 1 + | 43 | 8 | + 73 | − 52 | 3 − | 87 | 18.1 | 11 | 26 |
| 2 | 1 + | 50 | 9 | + 52 | − 46 | 4 − | 71 | 9.5 | 43 | 29 |
| 3 | 2 − | 42 | 9 | + 18 | − 84 | 4 − | 61 | 5.9 | 58 | 27 |
| 4 | 3 − | 58 | 12 | − 2 | − 29 | 4 − | 67 | 6.8 | 64 | 33 |
| 5 | 1 − | 67 | 13 | + 7 | − 17 | 4 − | 81 | 6.3 | 57 | 29 |
| 6 | 1 − | 58 | 2 | + 4 | − 64 | 4 − | 63 | 8.3 | 60 | 30 |
| 7 | 1 + | 51 | 5 | + 37 | − 65 | 3 − | 74 | 16.0 | 44 | 29 |
| 8 | 0 av. | 55 | 0 | + 26 | − 79 | 2 − | 79 | 9.9 | 44 | 27 |
| 9 | 1 − | 53 | 1 | + 7 | + 14 | 1 − | 72 | 12.2 | 54 | 33 |
| 10 | 1 − | 46 | 0 | + 2 | − 48 | 1 + | 80 | 10.6 | 35 | 29 |
| 11 | 1 − | 59 | 0 | + 10 | − 10 | 6 + | 79 | 15.3 | 38 | 34 |
| 12 | 0 av. | 64 | 0 | + 87 | − 22 | 1 − | 75 | 10.5 | 74 | 38 |

The districts indicated by number in the first column are the following:—

*Principal Wheat-producing Districts*—1, Scotland, N.; 2, Scotland, E.; 3, England, N.E.; 4, England, E.; 5, Midland Counties; 6, England, S.

*Principal Grazing &c., Districts*—7, Scotland, W.; 8, England, N.W.; 9, England, S.W.; 10, Ireland, N.; 11, Ireland, S.; 12, Channel Islands.

## MARKETS.

### *COVENT GARDEN, May 8.*

Business steady throughout the week. Hothouse fruit in fair supply.

**Fruit.—Average Wholesale Prices.**

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Apples, ½-sieve ... | 1 6 | – 7 0 | Melons, each ... | 2 0 | – 5 0 |
| — Nova Scotia, brl. | 12 0 | – 25 0 | Pine-apples, St. Michael, each ... | 2 0 | – 6 0 |
| — Tasmanian, case | 15 0 | – 20 0 | Strawberries, lb. ... | 2 0 | – 8 0 |
| Grapes, new, lb. | 5 0 | – 7 0 | | | |
| Lemons, per case ... | 12 0 | – 20 0 | | | |

**Vegetables.—Average Retail Prices.**

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Asparagus, English, per bundle ... | 12 0 | – ... | Mustard and Cress, punnet ... | 0 4 | – ... |
| Beans, French, lb. ... | 2 0 | – ... | Onions, per bunch ... | 0 5 | – ... |
| Beet, red, per dozen | 1 0 | – 2 0 | Parsley, per bunch ... | 0 6 | – ... |
| Carrots, per bunch ... | 0 6 | – ... | Rhubarb, per bundle | 0 6 | – ... |
| Cauliflowers, each ... | 0 3 | – ... | Seakale, punnet ... | 2 0 | – ... |
| Celery, per bundle ... | 1 6 | – 2 0 | Shallots, per lb. ... | 0 6 | – ... |
| Cucumbers, each ... | 1 0 | – 1 6 | Spinach, per bushel ... | 6 0 | – ... |
| Endive, per dozen ... | 2 0 | – ... | Sprue, per bundle ... | 1 6 | – ... |
| Herbs, per bunch ... | 0 4 | – ... | Brussel Sprouts, per lb. | 0 3 | – ... |
| Leeks, per bunch ... | 0 3 | – ... | Tomatos, per lb. ... | 1 0 | – ... |
| Lettuces, per dozen ... | 1 6 | – ... | Turnips, per bunch, new ... | 0 4 | – ... |
| Mushrooms, punnet | 1 6 | – ... | | | |

**Plants in Pots.—Average Wholesale Prices.**

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Aralia Sieboldi, doz. | 6 0 | – 18 0 | Foliage plants, various, each ... | 2 0 | – 10 0 |
| Arum Lilies, per doz. | 8 0 | – 12 0 | Genista, per doz. ... | 8 0 | – 12 0 |
| Aspidistria, doz. ... | 18 0 | – 42 0 | Heliotrope, per doz. | 6 0 | – 9 0 |
| — speci. plants, each | 7 6 | – 10 6 | Hydrangeas, doz. ... | 12 0 | – 18 0 |
| Azaleas, various, each | 2 0 | – 3 0 | Liliums, various, per dozen ... | 18 0 | – 36 0 |
| Cineraria, per doz. ... | 6 0 | – 10 0 | Lily of the Valley, p. doz. pots ... | 12 0 | – 18 0 |
| Cyclamen, dozen ... | 6 0 | – 18 0 | Lobelia, per dozen ... | 5 0 | – 6 0 |
| Cyperus, per dozen . | 4 0 | – 12 0 | Marguerites, doz. ... | 6 0 | – 12 0 |
| Dielytra, per doz. ... | 9 0 | – 12 0 | Mignonette, per doz. | 5 0 | – 9 0 |
| Dracæna terminalis, per dozen ... | 30 0 | – 60 0 | Musk, per dozen ... | 4 0 | – 6 0 |
| — viridis, per doz. | 12 0 | – 24 0 | Palms in var., each | 2 6 | – 21 0 |
| Erica Cavendishii, per dozen ... | 18 0 | – 48 0 | Pelargoniums, scarlet, per dozen ... | 6 0 | – 8 0 |
| — ventricosa, doz. | 15 0 | – 24 0 | — per doz. ... | 12 0 | – 24 0 |
| Euonymus, in var., per dozen ... | 6 0 | – 18 0 | Roses, various, doz. | 12 0 | – 24 0 |
| Evergreens, in var., per dozen ... | 6 0 | – 24 0 | — (Fairy), per doz. | 8 0 | – 10 0 |
| Ericas, various, doz. | 8 0 | – 24 0 | Saxifrage, per doz. | 18 0 | – 24 0 |
| Ferns, in var., doz. | 4 0 | – 18 0 | Solanums, per dozen | 6 0 | – 12 0 |
| Ficus elastica, each . | 1 6 | – 7 0 | Tulips, doz. pots ... | 6 0 | – 9 0 |

*** Bedding plants in variety in boxes, and also in pots.

**ROBINSON Jonathan.**

Personal Estate £10,687 18s. 1d.

9 May. The Will of Jonathan Robinson late of Spencer-parade Northampton in the County of **Northampton** Shoe Manufacturer who died 1 March 1891 at Northampton was proved at the **Principal Registry** by Susannah Robinson Widow the Relict and John Perry Robinson Shoe Manufacturer the Son both of Spencer-parade the Executors.

**ROBINSON Joseph.**

Personal Estate £17,192 15s. 1d.
Resworn April 1891 £17,126 8s. 11d.

30 January. The Will of Joseph Robinson late of Little Stonegate in the City of **York** Plumber who died 13 January 1891 at Little Stonegate was proved at **York** by Catherine Robinson of Little Stonegate Spinster the Daughter the sole Executrix.

**ROBINSON Joseph.**

Personal Estate £815 7s.

2 April. The Will of Joseph Robinson late of Chelsea Villa Slough in the County of **Buckingham** who died 25 March 1890 at Chelsea Villa was proved at **Oxford** by Catherine Robinson of Chelsea Villa Widow the Relict and Henry Jenner Johnston of Beaconsfield in the said County Gentleman the Executors.

**ROBINSON Joseph.**

Personal Estate £608 16s. 5d.

19 May. The Will of Joseph Robinson late of 2 Low-Fell-Side Kendal in the County of **Westmoreland** who died 24 March 1891 at Kendal was proved at **Carlisle** by Thomas Bindloss Innkeeper and Henry Dobson Solicitor both of Kendal the Executors.

**ROBINSON Joseph.**

Personal Estate £152 16s. 9d.

1 July. Administration of the Personal Estate of Joseph Robinson late of 13 Brighton-street Lee Mount Halifax in the County of **York** Carpet Weaver who died 21 May 1891 at Halifax was granted at the **Principal Registry** to Rachel Robinson of 13 Brighton-street Widow the Relict.

**ROBINSON Joseph.**

Personal Estate £148 9s. 4d.

14 July. Administration of the Personal Estate of Joseph Robinson late of Willington in the County of **Durham** Innkeeper who died 18 June 1891 at Willington was granted at **Durham** to Mary Robinson of Willington Widow the Relict.

**ROBINSON Joseph.**

Personal Estate £215 1s. 2d.

8 August. The Will of Joseph Robinson late of 26 Allerton-road Four Lane Ends Bradford in the County of **York** who died 23 July 1891 at 26 Allerton-road was proved at **Wakefield** by Isaac White of 259 Girlington-road Bradford Wool and Waste Dealer and Betty Robinson of 26 Allerton-road Widow the Relict the Executors.

**ROBINSON Joseph.**

Personal Estate £1,109 2s. 7d.

14 August. The Will of Joseph Robinson late of Bury St. Edmunds in the County of **Suffolk** Builder who died 5 July 1891 at Bury St. Edmunds was proved at **Bury St. Edmunds** by Mary Ann Robinson Widow the Relict (during Widowhood) and Henry Bonner Solicitor's Clerk both of Bury St. Edmunds the Executors.

**ROBINSON Joseph.**

Personal Estate £163 3s. 6d.

16 September. The Will of Joseph Robinson late of 124 Parkdale-road Plumstead in the County of **Kent** who died 12 July 1891 at 124 Parkdale-road was proved at the **Principal Registry** by Jane Robinson of 124 Parkdale-road Widow the Relict the sole Executrix.

spot within so short a distance of the heart of the Black Country. Kinver Edge has now been presented by the family of the late Mr. Thomas Grosvenor Lee, of Birmingham, to the National Trust, to be held for the use of the public. This munificent gift comprises some two hundred acres of heathery moor, which will be much appreciated, and will serve to keep green the memory of the famous naturalist. At a public celebration of the gift on September 28, Canon Rawnsley, the chairman of the Trust, formally accepted the gift, and Lord Dartmouth and the Mayor of Stourbridge made speeches congratulating the Trust on the acquisition of its first piece of property in the heart of the Midlands.

**Four Veteran Gardeners.**—We reproduce in fig. 51 an interesting photograph of four veteran gardeners, Messrs. H. Ballantine, T. Robinson, J. Jemmett, and A. Sinclair, taken recently in the garden of Mr. Ballantine at Westwood, Egham, where he now resides. Each of these four gardeners is over eighty years of age, and their combined ages amount to 336 years. Mr. Ballantine was born in 1833, and began his gardening career in Scotland. While still a young man he was appointed gardener and bailiff at "The Dell," Baron Schröder's residence at Englefield Green. Here he stayed for nearly half a century, and the late Baron, who esteemed him very highly, on his death left Ballantine a legacy of one thousand pounds. He was a keen and successful Orchid grower, and was for twenty-five years a member of the R.H.S. Orchid Committee. In 1907 he was presented with the Victoria Medal of Honour, and in 1911 he retired from "The Dell" appointment. Some particulars of his career, and a portrait, were published in *Gard. Chron.*, Sept. 14, 1907, and his retirement is mentioned in the issue for April 1, 1911. Mr. T. Robinson was born in 1835. His experience was chiefly gained in the south of England, but his first post as head gardener was at Maryborough Park, Cork. Later he was for twenty-nine years gardener and bailiff at the Royal Indian Engineering College, Cooper's Hill, and retired in 1899. Mr. J. Jemmett is the eldest of the little group, having been born in 1831. He is still in harness and has never been absent from work for a day through illness, being hale and hearty. For the last fifty-six years he has held the post of gardener at Milton Park, Egham, where he has served three generations of Barons de Worms. Mr. A. Sinclair is two years younger than Mr. Jemmett. He began work at nine years of age, and has had a very varied experience, having served in gardens as far north as Banff. His last position was that of head gardener to R. Charington, Esq., at Hunsdon House, Ware, where he remained for fifteen years, retiring in 1909.

**Potato Grower Fined £300.**—At Wisbech Police Court recently George Tansley, a Potato grower, was fined £300 on twelve counts of having sold seed Potatos at prices above the maximum. The excess profit was £211. He pleaded that the Government had commandeered 167 tons of his Potatos at £8 a ton, while his neighbours had obtained £11 a ton on the market.

**Medlar Seeds as Poultry Food.**—It is not generally known (states the *Journal of the Royal Society of Arts*) that the seeds of the Japanese Medlar (Eriobotrya japonica), a tree which is grown for its fruit on the French Riviera, can be used for feeding poultry, rabbits, and other domestic animals. They can also be used for distilling a spirit resembling Kirschwasser. Food for poultry can be prepared by simply boiling the fresh or dried seeds in water for thirty to forty-five minutes, and then crushing them or using them whole, as may be desired; or, instead of being boiled, they may be roasted like coffee. Another plan, which has the advantage of not requiring heat, is to crush the seeds, then moisten them with sufficient water, and allow them to remain in this state for twelve hours. The mass is spread out in a thin layer to dry in the sun, in order to remove any traces of the bitter flavour. This poultry food can be used dry or wet as preferred.

**Soil Bacteria.**—During the past eight years Mr. H. Joel Conn has been engaged in the very difficult and important work of studying the bacterial flora of the soil.* Our knowledge of the bacterial content of the soil progresses very slowly, and this because of the fact that it is a new branch of science. The organisms have to be isolated and cultivated. Many of them are new and not easy of cultivation under artificial conditions. The soil bacteria are of two types: those which form spores and those which do not. The former are relatively few in number, and are probably not of agricultural importance, since they appear to occur in the soil only in their spore—or resting—stage. The non-sporers, on the other hand, occur in great number and variety, increase amazingly when the soil is manured, and also when it is aërated. Some of them are known to be ammoniafiers—that is, producers of ammonia. As an example of the effect of aëration on the bacterial population of the soil, Mr. Conn mentions that whereas 1 gram (about 15 grains) of dry soil yielded about 16 million colonies, a similar amount of the same soil yielded after aëration about 28 million colonies. It will evidently be a long while before we shall be able to purchase soil fertility bacterial starters, which, added to soil, will infallibly set going those beneficent processes of corruption—and those only—whereby the food and stimulant necessary for perfect vegetable growth are produced. Yet it does not require much vision to see the agriculture and horticulture of the future employing the bacteria of the soil in as sure and beneficent a manner as the dairyman now employs cultures of micro-organisms to act as starters in producing the kind of cheese he wants.

* *Soil Flora Studies.* Bulls. No. 57, 58, and 59, New York Agric. Exp. Station, Geneva, N.Y.

## HISTORIC FIRM.

With some notable exceptions British seed firms have been more or less short-lived. They have flourished for periods of varying brevity, but few have continued successful for more than a century. That being the case, it is cheering to find an exception in the case of a firm which is known, not only throughout Scotland, but also throughout the whole of the United Kingdom—that of Messrs. Austin and McAslan, of Glasgow. The bicentenary of the firm was celebrated on the 28th ult. by a dinner in the Trades Hall, Glassford Street, Glasgow, at which a numerous and representative company was present. The chair was occupied by Mr. Alexander N. Hunter, the present head of the firm, and the guests numbered about one hundred and fifty. The Lord Provost and other important townspeople were present, and Sir Robert Wright, the chairman of the Board of Agriculture for Scotland. Representing the staff of Messrs. Austin and McAslan were Messrs. John Cairns, R. M. Young, S. G. Smith and J. J. Robertson. The following represented the garden and agricultural seed trade and nursery trade: W. Cuthbertson (Dobbie and Co., Edinburgh), J. M. Bridgeford (Watkins and Simpson, Ltd., London), A. W. Johnson (Hurst and Son, London), Andrew Aitken (Chas. Sharpe and Co., Ltd., Sleaford), T. S. Findlay (Findlay Bros., Bailliston), Joseph Dobson (Wm. Leighton, Glasgow), T. B. B. Kerr (Kerr and Co., Glasgow), James Gray (Glasgow), W. P. Maltman (Alex. Cross and Sons, Glasgow), James McKenzie (Glasgow), Andrew Motherwell (Glasgow), T. C. Meldrum (Smith and Meldrum, Forfar), John Sutherland (Lenzie), John Smellie (Busby), Thos. Jeffrey (Edinburgh), Chas. Young (Kennishead), Thos. Thomson (John Donaldson and Co., Edinburgh), J. D. Alexander (Pringle and Alexander, Glasgow), R. W. Todd (Dunlop and Todd, Glasgow), Robt. Howie (Glasgow), W. Gilchrist (W. Gilchrist and Sons, Glasgow), P. M. Hamilton (Arch. Hamilton and Sons,

Fig. 51.—Four veteran gardeners.

Reading from left to right:—H. Ballantine, T. Robinson, J. Jemmett, and A. Sinclair.

Oxford Dictionary of National Biography

**Robinson, William** (1838–1935), *horticulturist and publisher*
by E. Charles Nelson
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**Robinson, William** (1838–1935), horticulturist and publisher, was born on 15 July 1838 in Ireland, the son of William Robinson and his wife, Catherine, *née* Farrell (*c*.1818–1892). While reticent about his origins, Robinson did acknowledge that he came from Ireland: he 'kept an affection for his native land, but seldom came back to Ireland' (Moore, 459). Consequently many inaccurate statements have been published about his birthplace, training, and family background. Allan (1982) stated that he had a brother, James, as well as a sister (unnamed), but their existence has not been confirmed.

No information can be traced about William's childhood and education until he became a garden-boy at Curraghmore, co. Waterford, 'his first job being that of carrying water from the ... river ... to the glasshouses' ('The late William Robinson', 202). He would have served subsequently, for two years each, as an apprentice and a journeyman, but it is not known in which gardens he worked. Eventually he was engaged as foreman gardener at Ballykilcavan, near Stradbally, in Queen's county, by the Revd Sir Hunt Johnson-Walsh. A story, which cannot be verified, relates that one night, following a violent disagreement with Johnson-Walsh, Robinson 'drew out all the fires in the glass-houses and opened every window' (Taylor, 'A great nineteenth-century gardener', 923) and then left Ballykilcavan and walked to Dublin. He obtained a 'recommendation' from David Moore, curator of the Royal Dublin Society's Botanic Gardens, Glasnevin, Dublin, and proceeded to London, where, early in 1862, he found employment in the Royal Botanic Society's gardens at Regent's Park, under Robert Marnock. Before long Robinson was appointed foreman of the educational and herbaceous department there. He resigned in June 1866 'to devote himself to the study of our Great Gardens and to the Literature of Horticulture for a year or two' (Allan, 50). He had already written articles for the *Gardeners' Chronicle*, and in January 1867—with commissions from that periodical, *The Field*, and *The Times*—travelled to France, where for seven months he studied horticultural practices, visited gardens and nurseries, and attended the Universal Exhibition. Two books resulted: *Gleaning from French Gardens* (1868) and *The Parks, Promenades and Gardens of Paris* (1869). Later he travelled more extensively in Europe.

By May 1868 Robinson had a house in Kensington, London, where he employed a housekeeper and gardener. In 1870 there appeared one of his more famous works, *The Wild Garden*, as also did *Alpine Flowers* and *Mushroom Culture*. That autumn he visited the United States of America, journeying by rail as far west as San Francisco. Another tale relates that Robinson's brother accompanied him because the two were intent on finding, and demanding money from, their father, who allegedly had eloped there with a lady of the St George family. In fact William travelled alone, and the story about his father's infidelity cannot be verified.

In 1871 Robinson published *A Catalogue of Hardy Perennials*, *Hardy Flowers*, and *The Subtropical Garden*. By that year he had sufficient capital to establish a

weekly, illustrated periodical devoted to horticulture. *The Garden* started publication on 25 November 1871; Robinson edited it until 1899 and owned it until 1919. Other periodicals followed: *La Semaine Française* (1878–83); *Gardening* (1879; later entitled *Gardening Illustrated*); *The Garden Annual, Almanack and Address Book* (1881); *Farm and Home* (1882); *Woods and Forests* (1883; merged with *The Garden*, 1886); *Cottage Gardening* (1892–8); and *Flora and Sylva* (1903–5). He also started, 'in a fit of pique' (Taylor, *Some Nineteenth Century Gardeners*, 76), a very short-lived daily newspaper called *London*. His most important work is *The English Flower Garden* (1883), which has been described as 'the most widely read and influential gardening book ever written' (Allan, 137). It was not, however, solely by Robinson; many of the sections were the acknowledged work of others. Nor was it entirely original, because Robinson drew substantially on his earlier books, notably *Hardy Flowers*. Fifteen editions, some reprinted several times, appeared during Robinson's lifetime.

Robinson was elected a fellow of the Linnean Society of London on 19 April 1866 and a fellow of the Royal Horticultural Society about 1903. Despite his undoubted influence and stature he never received, or never accepted, any honours—he refused the Victoria medal of honour from the Royal Horticultural Society, and a knighthood 'freely offered him [was] graciously declined' (Allan, 227).

His publications were generally profitable, and soon Robinson was wealthy, able to invest in property in London and, eventually, to purchase Gravetye Manor estate, Sussex. He took up residence at Gravetye in August 1885 and lived there until his death. Robinson remodelled the Elizabethan manor house, remade the garden, and enlarged and planted the estate. He wrote about Gravetye in several books, including *Gravetye Manor* (1911) and *My Wood Fires* (1917).

Robinson was a vegetarian. He was a bachelor, although in the 1860s he was briefly engaged to be married. In 1909 he fell, injuring his spine; this caused a flare-up of latent syphilis and he became paralysed and was confined to a wheelchair for the rest of his life. He died at Gravetye on 12 May 1935 and was cremated at Golders Green on 15 May. As early as 1880, in *God's Acre Beautiful*, Robinson himself had promoted this rite, and he had designed the layout of the grounds at Golders Green crematorium.

His books and periodicals provided Robinson with platforms from which to promote his own philosophy of gardening, and in this he was pre-eminently successful. Robinson, it is widely claimed, was 'responsible for sweeping away … carpet-bedding' (Allan, 138) and promoting a more relaxed style using hardy plants. He was a belligerent and capricious character with strongly held, sometimes (especially in later life) contradictory, views, who was not afraid to criticize his contemporaries, especially landscape architects. Opinions about him were, and remain, discordant. For example Mitchell averred he was 'sensitive' and 'a saint', while Edwin Lutyens found him boring and cantankerous. In 1933 R. H. Crane eulogized him as 'The father of the English flower garden' (Allan, 224), and Taylor concluded that he was the 'greatest of English gardeners' ('A great nineteenth-century gardener', 924). The obituarist of the *Gardeners' Chronicle* cautioned against 'ascribing to him almost supernatural powers that he did not possess' (18 May 1935), a view echoed by Elliott, who argued that 'Robinson was not a revolutionary figure, but a popularizer … [who] to a considerable degree … engineered the creation of his own myth' ('Some sceptical thoughts', 217).

E. CHARLES NELSON

**Sources** M. Allan, *William Robinson, 1838–1935: father of the English flower garden* (1982) · G. Taylor, 'A great nineteenth-century gardener', *The Listener* (16 Dec 1948), 923–4 · G. Taylor, *Some nineteenth century gardeners* (1951) · R. Duthie, 'Some notes on William Robinson', *Garden History*, 2/3 (1974), 12–21 · 'The late William Robinson', *Gardening Illustrated* (18 May 1935), 202 · 'William Robinson', *Gardeners' Chronicle*, 3rd ser., 97 (1935), 323–4 · R. Duthie, 'An addendum to the article "William Robinson: a portrait" by Mrs Bettey Massingham', *Garden History*, 6/2 (1978), 20–21 · B. Elliott, 'Some sceptical thoughts about William Robinson', *The Garden*, 110 (1985), 214–17 · A. Grove, 'Robinsoniana', *Gardeners' Chronicle*, 3rd ser., 97 (1935), 378–9 · B. Massingham, 'William Robinson: a portrait', *Garden History*, 6/1 (1978), 61–85 · H. Mitchell, foreword, in W. Robinson, *The English flower garden* (1985), v–xi · P. Moore, 'William Robinson centenary', *Gardening Illustrated* (23 July 1938), 459 · E. C. Nelson, 'An Irish bachelor as father of the English flower gardens: a review of *William Robinson, 1838–1935* by Mea Allan', *Moorea*, 2 (1983), 54–6 · E. C. Nelson, 'William Robinson's letters to Frederick and Phylis Moore', *Moorea*, 5 (1986), 29–37 · *DNB* · *The letters of Edwin Lutyens to his wife Lady Emily*, ed. C. Percy and J. Ridley (1985) · B. Elliott, *Victoria medal of honour, 1897–1997* (1997) · G. D. R. Bridson, V. C. Phillips, and A. P. Harvey, *Natural history manuscript resources in the British Isles* (1980) · d. cert.

**Archives** Merseyside Naturalists Association, Liverpool, copy corresp. and papers · Royal Horticultural Society, London, papers relating to Gravetye Manor · W. Sussex RO, corresp. and papers | Harvard U., Gray MSS · Hove Public Library, Sussex, letters to Lord and Lady Wolseley · National Botanic Gardens, Glasnevin, Dublin, Moore MSS

**Likenesses** Carolus-Duran, oils · F. Dodd, etching; Sothebys, 22 Oct 1970, lot 4 [*see illus.*] · photographs, repro. in Allan, *William Robinson*

**Wealth at death** £95,954 gross; £72,783 net; left Gravetye Manor and estate to the nation: Allan, *William Robinson*, 234

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E. Charles Nelson, 'Robinson, William (1838–1935)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/37906, accessed 28 Nov 2014]

William Robinson (1838–1935): doi:10.1093/ref:odnb/37906

**ROBINSON** Thomas of 239 Tullibardine-road Ecclesall **Sheffield** died 3 September 1935 Probate **London** 18 November to Percy Mackley foreign correspondent. Effects £1271 0s. 11d.

**ROBINSON** Thomas of 5 Hadfield-place Glossop **Derbyshire** died 19 November 1935 Administration **Nottingham** 5 December to Alice Ann Robinson widow. Effects £255 5s. 3d.

**ROBINSON** Thomas Ettie of 14 Mistletoe-road **Newcastle-upon-Tyne** died 27 August 1935 at 16 Beverley-terrace Cullercoats Northumberland Administration **Newcastle-upon-Tyne** 23 October to Reuben Robinson chartered electrical engineer. Effects £188 12s. 8d.

**ROBINSON** Thomas Frederick of 9 The Broadway Phippsville **Northampton** died 15 June 1935 Probate **London** 19 August to Irene Robinson spinster. Effects £1034 8s. 1d.

**ROBINSON** Thomas George of Napton **Warwickshire** died 15 February 1935 Administration **London** 24 May to Ellen Frederica Robinson widow. Effects £1013 0s. 8d.

**ROBINSON** Thomas George of 9 Highland Laddie-row Bildershaw West Auckland county **Durham** died 20 June 1935 Probate **Durham** 30 October to Albert Ernest Robinson retired fish dealer. Effects £388.

**ROBINSON** Thomas Hindmarch of 13 Elwick-road **West Hartlepool** died 17 December 1934 Administration **Durham** 5 January to Alice Maud Mary Robinson widow.
Effects £959 6s. 6d.

**ROBINSON** Thomas William of 1 High Albert-terrace Billy-row Green near Crook county **Durham** died 19 May 1935 Probate **Durham** 28 December to Isaac English slater John Robert Robinson butcher and Frank Widdas Addison solicitor.
Effects £1873 3s. 3d.

**ROBINSON** Vesta Eurydice of 36 Khartoum-road **Southampton** widow died 5 November 1932 Administration **London** 22 July to Barbara Gertrude Robinson spinster.
Effects £16 3s. 5d. Former Grant P.R. 13 April 1933 cessate.

**ROBINSON** Victor of 232 Waterloo-road Hightown **Manchester** died 5 January 1935 at the Victoria Memorial Jewish Hospital Manchester Administration **Manchester** 11 April to Fanny Robinson widow and Sadie Robinson spinster.
Effects £1380 7s. 3d.

**ROBINSON** Walter of Southminster **Essex** died 10 March 1935 Probate **London** 29 April to Ellen Maud Stammers (wife of Harry Stammers) and Leslie Robinson machinist.
Effects £6163 18s. 9d.

**ROBINSON** Walter of Holmleigh Walcote **Leicestershire** died 5 February 1935 Probate **Leicester** 5 April to Edith Elizabeth Robinson widow. Effects £1576 14s. 7d.

**ROBINSON** Walter William of 1 Swan-street Sileby **Leicestershire** died 22 March 1935 Probate **Leicester** 11 May to Ada Robinson widow. Effects £334 9s. 6d.

**ROBINSON** dame Wemyss Nancy Rhodes of 32 Ashburnham Mansions Ashburnham-road Chelsea **Middlesex** widow died 25 June 1935 at the Rose Amber Hotel Garelochhead Helensburgh Dumbartonshire Probate **London** 27 July to Patrick Stormonth Darling solicitor. Effects £2440 7s. 9d.

**ROBINSON** William of 1 Walter-street Dinnington Colliery **Northumberland** died 10 April 1935 Administration **Newcastle-upon-Tyne** 14 May to Mary Ellen Robinson widow.
Effects £197 6s. 5d.

**ROBINSON** William of 3 Kineton-road **Oxford** died 8 January 1935 at 7 Manor House-road Jesmond Newcastle-upon-Tyne Probate **Oxford** 18 May to Arthur Thomas Fogden hairdresser and Charles Aubrey Back dairyman. Effects £2912 1s. 7d.

**ROBINSON** William of 54 North-road Wallsend **Northumberland** died 26 March 1935 Probate **Newcastle-upon-Tyne** 22 May to Annie Harrison (wife of Thomas Harrison) and Hannah Harvey (wife of George William Harvey).
Effects £426 16s. 8d.

**ROBINSON** William of 196 Cavendish-street Ashton-under-Lyne **Lancashire** died 1 April 1935 Probate **London** 28 May to Eva Annie Robinson widow and Edith Robinson spinster.
Effects £1150 3s. 5d.

**ROBINSON** William of Spring Gardens Villa Cotton Tree Trawden **Lancashire** died 28 May 1935 Probate **London** 20 June to John William Robinson club steward and Gertrude Lovell (wife of Ernest George Lovell).
Effects £1109 1s. 8d.

**ROBINSON** William of Seaforth House Seaforth-street Blyth **Northumberland** died 12 January 1921 Administration **London** 22 June to Thomas Henry Robinson variety theatre artist.
Effects £78.

**ROBINSON** William of Woodspeen London-road Newbury **Berkshire** died 11 April 1935 Probate **London** 28 June to Rebecca Frances Mabel Robinson widow. Effects £7600 15s.
Resworn £6790 11s.

**ROBINSON** William of Gravetye Manor East Grinstead **Sussex** died 12 May 1935 Probate **London** 20 September to The Public Trustee and Joseph Percy Thomasin Foster solicitor.
Effects £95954 7s. 8d.

**ROBINSON** William of Rosehill Holme near **Burnley** died 30 March 1935 Administration **London** 16 November to Mary Elizabeth Collinge (wife of George Henry Collinge).
Effects £250.

**ROBINSON** William of Laburnum Cottage Deanshanger Passenham **Northamptonshire** died 9 February 1935 at the General Hospital Northampton Probate **Oxford** 3 December to Sarah Amy Robinson widow. Effects £525 18s. 10d.

**ROBINSON** William of 2 Atherton View Leyland-lane Leyland **Lancashire** died 10 November 1935 at Bent-lane Leyland Probate **London** 30 December to John Robinson labourer and Margaret Robinson (wife of the said John Robinson).
Effects £310 4s. 7d.

**ROBINSON** William Allen of 31 Derby-road Heaton Moor **Lancashire** died 19 November 1934 at Ingleside Nursing Home Newbury Berkshire Probate **Manchester** 14 January to The Public Trustee. Effects £14988 3s. 10d.

**ROBINSON** William Austin of The Laurels Great Barton **Suffolk** died 7 August 1935 Administration **Ipswich** 27 August to Elizabeth Rachel Robinson widow. Effects £307 19s. 6d.

**ROBINSON** William Charles of 21 Ascupart-street **Southampton** died 16 March 1935 Administration **Winchester** 3 April to Mary Victoria Robinson widow. Effects £120 11s.

**ROBINSON** William Edward of 40 Sandy-lane Aintree **Liverpool** died 18 March 1935 Administration **Liverpool** 4 July to Louisa Robinson widow. Effects £539 16s. 4d.

**ROBINSON** William Heaton of 241 Manchester-road Stocksbridge near **Sheffield** died 23 September 1935 at the Royal Infirmary Sheffield Administration **Wakefield** 23 October to Arthur Robinson coal miner. Effects £540 7s. 10d.

**ROBINSON** William Henry of 4 Hawthorne Villas Moor Green West End **Hampshire** died 3 January 1935 Probate **London** 25 February to Emily Augusta Robinson widow and Albert Arthur Robinson driller. Effects £2191 17s. 2d.

**ROBINSON** William Henry of 7 Co-operative-terrace Wheatbottom Crook county **Durham** died 27 May 1935 Probate **Durham** 22 June to Joseph Close railway waggon examiner and William Henry Tweddle co-operative society's departmental manager. Effects £151 3s.

Oxford Dictionary of National Biography

**Rochford family** (*per.* 1840–1932), *horticulturists*
by John Martin
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**Rochford family** (*per*. 1840–1932), horticulturists, was founded by **Michael Rochford** (1819–1883), who was born in Clandulla, co. Clare, Ireland, into a close-knit Roman Catholic family whose ancestors had lived in the Clandulla area for many generations. Little is known of his childhood but in keeping with the family tradition of emigration he moved to England in 1840 and found work as a gardener for Lord Nugent in Buckinghamshire, before becoming a steward for Lord Feversham in Yorkshire. At this stage he pioneered a number of improvements in glasshouse design, in particular the idea of glazing only the underside of the glass to save weight. On 16 July 1848 he married Sarah (*d*. 1906), daughter of Joseph Henry and Charlotte Mumford. **Thomas Rochford** (1849–1901), their first son, was born on 15 April 1849. Then followed **John Rochford** (1851–1919), born on 14 February 1851; Mary, born on 10 November 1852; Edmund, born on 16 November 1854; and **Joseph Rochford** (1856–1932), born on 3 December 1856. In 1857 the family moved to Tottenham, Middlesex, to run a 2 acre market garden, where Michael became a specialist grower of early grapes. Five more children were born: twins, Michael and George (14 May 1859); Elizabeth (10 July 1861); Charlotte Catherine (29 September 1863); Lucy (28 September 1865); and George (14 August 1867), named in memory of George, one of the twins, who had died at the age of four.

Michael Rochford continued to build up a prosperous business, growing plants and flowers for a wealthy clientele. He was instrumental in raising the efficiency of glasshouse production with the aid of the ‘Rochford boiler’ developed by his son Thomas, and through improvements in the ventilation system. When cheap imported grapes reduced the demand for his more expensive home-produced crop, Michael diversified into more popular indoor plants which were distributed through London agents. He continued to expand his business empire and was an eminent nurseryman in his own right. He died at his home, Stamford Road, Tottenham, on 29 January 1883, leaving the business in the capable hands of his son John. Thomas and John later became more famous than their father as nurserymen.

Thomas Rochford, the most renowned of all the family, left his father's nursery and went to work as a trainee gardener for James Sweet. In August 1876 he married Mary Ann Agnes (1854–1932), daughter of Samuel Straight, ivory cutter, and his wife, Agnes, and moved to nearby Northumberland Park, where he established a nursery in 1882. In 1884 he acquired from his brother Joseph 4 acres of the Turnford Hall estate, Cheshunt, Hertfordshire; in 1887 he purchased Turnford Hall itself. Expansion rapidly followed with the buying of more land and glasshouses at Turnford. Thomas also played a key role in pioneering the use of refrigeration to retard the growth of plants and thus achieve out-of-season flowering.

By 1900 the glasshouses covered 22 acres, of which approximately half were devoted to growing grapes; the rest grew hothouse pot plants—in particular lilies,

orchids, and ferns. By the time of the marriage of Thomas's own son Thomas, he was one of the largest greenhouse growers in England, and his importance was recognized in 1901 with eight awards including two gold medals by the Royal Horticultural Society. His success was marred, however, by the discovery that he was suffering from Bright's disease, an incurable illness at that time, from which he died at Turnford Hall on 12 October 1901.

Joseph Rochford, although nationally less well known than his brother Thomas, had worked in conjunction with him until the latter's death. In 1881, following his marriage to Mary Margaret Leech, he had purchased the 8 acres at Turnford Hall estate, 4 acres of which he subsequently sold to his brother Thomas. He pioneered tomato growing in the Lea valley, and he also became wealthy as a result of astute property deals, buying land which was subsequently sold for housing. In 1902, on the death of his brother, he became chairman of Thomas Rochford & Sons; he retained the position until his resignation in 1916. After the First World War he played a key role in helping to revitalize the fortunes of the firm. He died at Turnford on 29 June 1932.

John Rochford's career initially took a different path from that of his two brothers Thomas and Joseph. Following his father's illness and the move of his two brothers to the Lea valley, he remained in charge of the family nursery and rapidly became a well-known nurseryman in his own right. His first marriage was to Diana Benson, and after her death in 1892 he married Blanche Hindley. On the death of his brother Thomas, like his brothers Edmund and Joseph he became a director of Thomas Rochford & Sons. He died at his home, Cedrus Lodge, Turkey Street, Enfield, Middlesex, on 15 December 1919.

One of Michael Rochford's other sons, Edmund, ran his own successful nursery at Cranbrook Street, Cheshunt, specializing in the production of hothouse plants. This unit was, however, considerably smaller and less well known than the Lea valley enterprises organized by his other brothers. Edmund was also involved as a director of the family firm. Following the death of his first wife, May Norwood, on 7 March 1911, he subsequently married Louisa Cudlipp. Another brother, Michael, named after his father, maintained his own nursery at The Ride, Ponders End, for several years prior to his death at the age of twenty-seven.

Michael Rochford senior was, in his youth, described as a tall lanky fellow with piercing eyes, a trait which became less noticeable in later years. Michael and his sons were rotund in appearance. The main branch of the family, associated with the Lea valley area, were large-scale employers who were widely regarded not only as nurserymen but also as committed to their workforce. In the late nineteenth century they were one of the largest glasshouse growers in Britain. In spite of experiencing mixed fortunes in the twentieth century, the firm of Thomas Rochford & Sons, still run by the family, was internationally famous in the post-war period, particularly for the exhibitions it staged at the Chelsea flower show.

JOHN MARTIN

**Sources** M. Allan, *Tom's weeds* (1970) · *Dictionary of gardening*, Royal Horticultural Society, 4 vols. (1951) · b. cert. [Thomas Rochford] · b. cert. [John Rochford] · b. cert. [Joseph Rochford] · d. cert. [Michael Rochford] · d. cert. [John Rochford] · d. cert. [Thomas Rochford] · *CGPLA Eng. & Wales* (1883) · *CGPLA Eng. & Wales* (1901) · *CGPLA Eng. & Wales* (1920)

**Archives** Royal Horticultural Society, London

**Likenesses** photographs, repro. in Allan, *Tom's weeds*

**Wealth at death** £843 14*s*. 7*d*.—Michael Rochford: probate, 17 April 1883, *CGPLA Eng. & Wales* · £79,466 6*s*. 7*d*.—Thomas Rochford: probate, 11 Dec 1901, *CGPLA Eng. & Wales* · £39,056 12*s*. 11*d*.—John Rochford: resworn administration with will, 22 April 1920, *CGPLA Eng. & Wales*

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John Martin, 'Rochford family (*per*. 1840–1932)', *Oxford Dictionary of National Biography*, Oxford University Press, 2004 [http://ezproxy-prd.bodleian.ox.ac.uk:2167/view/article/50037, accessed 28 Nov 2014]

Rochford family (1840–1932): doi:10.1093/ref:odnb/50037
Michael Rochford (1819–1883): doi:10.1093/ref:odnb/50731
Thomas Rochford (1849–1901): doi:10.1093/ref:odnb/50733
John Rochford (1851–1919): doi:10.1093/ref:odnb/50734
Joseph Rochford (1856–1932): doi:10.1093/ref:odnb/50732

# THE GARDENS OF LORD RENDLESHAM.

## Interview with Mr. Henry Rogers, at Rendlesham Hall, Woodbridge.

THE Suffolk seat of Lord Rendlesham is only two miles from Wickham Market Station, but the fine park by which it is surrounded secures seclusion; and the stately mansion is in accord with the general tranquility of the scene. Paying a visit to Rendlesham early in June, I was met on my arrival by Mr. Henry Rogers, the gardener, and we commenced our round at the garden entrance. The first feature to attract my attention was a pretty arrangement of bedding in a quiet corner of the pleasure grounds.

"This season," said Mr. Rogers, "these beds are all filled with Phlox, pink and white. The soil here is very dry, but it has suited the Phlox. In one of the two houses, which was originally the conservatory, Peaches are grown, and the other, an old Rose house, miscellaneous plants."

"You have a nice show of Calceolarias, Spiræas, and Cinerarias in the house containing the Peaches."

"The Calceolarias and Cinerarias are Sutton's strain. One of the best of the Spiræas, which are all planted in pots, is Peach Blossom. Roses are no longer grown in the Rose house. Just now the principal tenants are Sweet Peas in pots for early flowering. We have been able to obtain nice blooms for table decoration since the end of April. The varieties are the older, such as Etta Dyke, Helen Lewis, Asta Ohn, and The King. More worthy of note than these, however, is the grand Wistaria outside, one of the oldest in the country."

THE CONSERVATORY AT RENDLESHAM HALL.

### Corresponding Patches of Colour.

"Yes, it is a splendid specimen, and in harmony with the place. What is the principle of the mixed border under the wall on either side of the walk?"

"The flowers are planted in patches, with a corresponding patch on the other side. Thus, there are two patches of Lobelia cardinalis, two of Antirrhinums, Sutton's selected varieties, and the same of Pentstemons (crimson-pink), Larkspurs, Scabious, Clarkias, Asters, Stocks, Phlox Drummondii, and Nemesias. At the back are standard Roses, Dorothy Perkins, with Sweet Briers below. On the wall of the kitchen garden, which lies behind, are Peaches. There are many flowers in the kitchen garden, but, in passing on to the terrace, we had better for the moment notice only the long border."

"You may well call it long. Can you tell me the measurement?"

"Seventy-five yards, and there are over two thousand plants in the border. The colours prevailing are pink and blue. The two chief varieties of Geraniums are Mrs. Hawley (deep pink), and Madame Crousse (pink); Flower of Spring is also used. Heliotrope Madame de Buzzi are used both for standards and groundwork, and the edging consists of Viola Maggie Mott. The standard Roses at the back are Dorothy Perkins."

"I see that your Hydrangeas in tubs are standing ready for transfer to their summer quarters."

"Yes, the trusses of flower are quite satisfactory, and there will be blooms outside until October. The variety is hortensis."

"I am particularly impressed with the beauty of the Copper Beeches."

"They are always admired, because they are so well furnished, as well as stately and of good colour. The ordinary Beeches also do exceedingly well."

"And Cedars?" I rejoined, as we approached the Hall, and I observed specimens feathered to the ground.

"Cedars, and Walnuts, too. With regard to the terrace bedding, you may like to know first how it is made up in spring. Narcissi, Wallflowers, Arabis, and Polyanthus are largely used, two beds being filled with yellow Polyanthus and two with a darker variety; one with double white Arabis; and others with Wallflowers, Blood-red and Cloth of Gold. In summer, Pelargonium Paul Crampel and Marguerite Queen Alexandra fill several beds. Others are occupied with Heliotrope Madame Buzzi, Geranium Flower of Spring, and Viola Maggie Mott. The centre bed contains Geranium Achievement, edged with Viola Mrs. Roberts; and another Calceolaria amplexicaulis, standard Streptosolens, and Geranium Harry Hieover. The standard Roses—Dorothy Perkins—which run right along the terrace, were only planted last autumn."

"They have made excellent growth. You also turn Golden Privet to excellent account."

"It goes well with standard Lonicera along the border of the park, and the latter gives an abundance of flowers for several weeks."

"Is the conservatory used much for flowers?"

"Chiefly for Palms, but we decorate it with flowering plants. The Tacsonia flowers all through the winter, but the height is so great that we cannot cut any."

Crossing the lawn, we went down steps into the herbaceous garden, with a Lily pond in the centre.

"When was this made?" I asked.

"Thirty years ago, when the present Hall was erected. It was a sunk Rose garden for some seasons, but Roses did not thrive, and ten years ago we adapted it to its present use."

### A Collection of Zonals.

"Is the glass a great feature at Rendlesham?" I asked, as we proceeded from the mansion back to the large and ornamental kitchen garden, and entered a house containing a magnificent show of Zonal Pelargoniums.

"We have a good deal of it, and we do our best to turn it to account. Lord Rendlesham is fond of Zonals, and we get a long succession of blooms. These have been in flower for seven weeks, and will keep on flowering all through the summer. They will be followed by another lot for the winter."

"What is the size of some of the larger pips?"

"They measure nearly three inches across. I attach as much importance to the foliage as to the flowers, and if the former is satisfactory, the latter are almost sure to be so."

"When do you put your cuttings in?"

"During September. They remain in small pots until February, and are then potted on."

"Please mention a few of the most striking varieties?"

"Captain Holford, Lady Laurier, Lucania (a glorious colour), The Mikado, The Sirdar, Snowstorm, Mrs. Simpson (pink), President McKinley (red), Caledonia (pink), Lord Curzon, Lady Roscoe, Mrs. Williams, Duke of Norfolk, Clevedon (orange), and Mrs. Innes Rogers."

"Of course, you show Pelargoniums?"

"I have shown regularly at Woodbridge and Ipswich, and I have never been beaten. Now we come to another speciality, Border Carnations."

### The Coronation Flower.

"And another fine show. I see that you have the Coronation flower, Lady Hermione."

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"Yes, we have a great many of the Queen's favourite."

"Just now the pale lemon of Cecilia and the scarlet of King Arthur present a very fine contrast. When did these begin to flower?"

"This month only; but we kept them back a little. The flowering season usually commences in May and lasts until the plants outside flower in July. We have Border Carnations in flower for quite six months."

"How do you treat them?"

"They are taken out and layered in July, potted on in small pots for the winter, and put into flowering pots in January. The Border Carnations are succeeded by the Trees. In this house are two centre beds of Enchantress, from which we cut daily, and on the side stages are many other varieties. On an average, we cut three dozen blooms daily. Then there are the Malmaisons."

"Also looking the picture of health."

"Malmaisons generally do well. Of the thirty varieties, none deserve more to be recommended than the Duchess of Westminster, of which we get twenty-five spikes on a plant. In the three houses, there are six hundred Border, five hundred Trees, and five hundred Malmaisons respectively; and I have eight hundred Trees to come on during the winter."

"That is a big representation of the sections, and I judge that at Rendlesham, Orchids take a back seat to Carnations?"

"We do not go in much for Orchids, the principal being Cypripediums. Cœlogyne cristata, and Masdevallias. As a change from the Arums, we grow a good many of the yellow Lily (Calla Elliottiana), some with double spathes. The colour is lovely. Gloxinias are grown in quantity from a packet of seed. They make a show in the flowering house, and we put a few pots in the mansion. Primula kewensis has been flowering since October. It will last in water for five days."

**Melons and Figs.**

"Now," continued Mr. Rogers, "we come to Melons. Similar varieties are grown in the three houses, namely, Sutton's Superlative, Gunton's Scarlet, Taunton Hero, and Sutton's Emerald Green. Taunton Hero is very good. In the Tomato house the best variety for early use is Holmes' Supreme. We force Strawberries Royal Sovereign, Viscountess, and Gunton Park."

"How many crops do you get from your Figs in pots?"

"Three. The varieties are Negro Largo, Osborne's Prolific, Brown Turkey, St. John, and Pingo de Mel. There is nothing remarkable in the adjacent stove. In fact, Lord Rendlesham does not care to grow many stove plants, and we only use a few Crotons, Dracænas, etc. Calanthes on the shelves are coming on splendidly. It is much better to put them on a shelf than lower.

**French Beans All the Year.**

"You appear to have a house devoted to Beans."

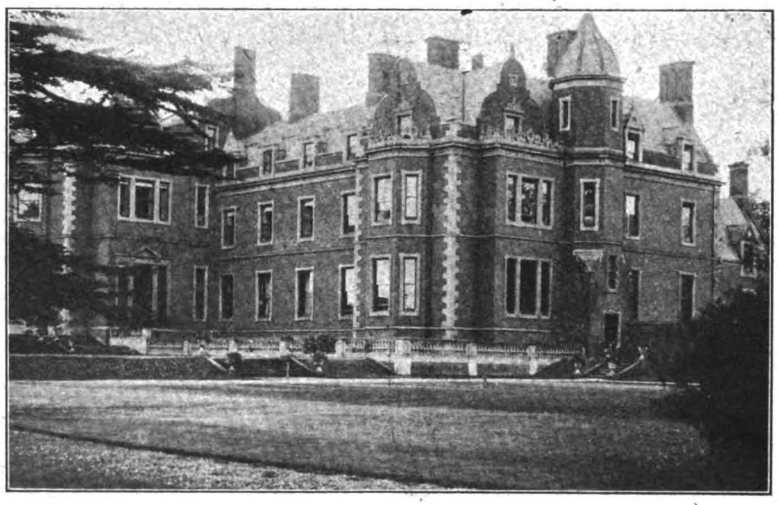
"We are never without Beans inside or out. The variety is Veitch's Early Favourite, and we have some now in frames. All are grown in pots, and Early Favourite is much the best variety for forcing. Just outside this house there is a border of early Peas, which we gathered the last day in May. The variety is Veitch's Earliest of All, which is succeeded by Gradus and Acme. Also we grow Criterion, Ne Plus Ultra, Duke of Albany, and Autocrat. Peas are always picked as late as October, and very often we get a good crop in November."

"You manage to make your frame ground quite ornamental in appearance?"

"You are alluding to the serpentine wall clothed with different varieties of Ivy and Virginian Creeper. It certainly makes a difference, and involves very little expenditure of time or money. Now, I think, before we explore the kitchen gardens outside, we had better finish with the fruit range."

"You have more Figs, I see."

"In this Fig house the tree is White Marseilles, and it is quite full of fruit, though fifty years old. We have to use a net to catch the fruit. In the early Vinery we began to cut Black Hamburgh on the 8th of this month. There are fine bunches of Muscats in the fifth, and in the sixth and seventh Alicantes and Madresfield Court are the varieties. In the latest house of all, Black Hamburgh and Alicante carry the season on continuously till March, so that we are only without Grapes three months in the year. In this last house, the Vines were planted fifty years ago, and many in the other houses thirty-four years."



RENDLESHAM HALL.

"Without renewal?"

"Yes, if a Vine does well, it does not want to be renewed. Then there is the early Peach house, also with nets to save the fruit. Our Peach season begins early in June."

"Shall we take the more ornamental part of the kitchen garden first?"

"Just as you like. Here is a border of Delphiniums, space being given to the individual plants, while facing them is a border of Anchusa italica Dropmore variety, giving a breadth of blue. Sweet Peas are a great decorative feature. We have about fifty varieties. One border is practically confined to varieties raised by Miss Hemus."

"You grow a number of other varieties in clumps?"

"I am growing Earl Spencer and Stirling Stent in rows together, and I must confess I prefer the latter, which is a far richer colour. Altogether, in addition to the Hemus collection, there are fifty-four rings and three rows of Sweet Peas."

"Do you give them any special treatment?"

"No; I merely trench them the same as I do Celery, sow for outside at the end of October, and for pots in September."

"Are your Border Carnations outside the same varieties as those inside?"

"There are many of the same, but many others are added. These were layered last August, and planted out in October, only ordinary garden soil being used. Yet some of the plants had no fewer than fourteen flowering spikes."

**The Treatment of Pentstemons.**

"A note ought to be made of your border of Pentstemons in the centre of your kitchen garden."

"The varieties are Earl of Minto, Rachel, Richmond, and Madame Vilmorin. They are in different shades of colour, from crimson to white, and embracing a number of pinks. Edged by Sweet Alyssums, which cover the Box, they last from early in June till the frost cuts them down. The cuttings are put in during September, kept in cold frames during the winter, and planted out in spring."

"What about Violets?"

"They are a feature at Rendlesham. In November, 1899, I was awarded the Royal Horticultural Society's medal for a very fine stretch of them, at the Drill Hall, Westminster. They are cultivated largely in frames, doubles and singles being put in every autumn. I have won many first prizes at the East Anglian shows, and have grown Violets to the highest standard of perfection for many years. They are still a special feature, the varieties grown being Prince of Wales, Duke of Parma, and Marie Louise. Violets and Carnations are Lord Rendlesham's favourite flowers. I have exhibited Carnations at the National Carnation Society's show, and at the Crystal Palace, and been very successful with them."

**The Best Hardy Fruit.**

"What about hardy fruit?"

"Apples are grown as bushes and pyramids, and Pears as pyramids and on the walls. The six best Apples are Cox's Orange Pippin, Lane's Prince Albert, Wellington, Ribston Pippin, Peasgood's Nonsuch, and Mere de Menage. The six best Pears are Doyenne du Comice, Williams's Bon Chretien, Marie Louise, Pitmaston Duchess, Durondeau, and Conference. Most of the dessert and standard varieties of Plums are grown. In front of the Vineries, Loganberries thrive exceedingly."

"Have you many varieties of Strawberries outside?"

"Trafalgar, Royal Sovereign, Latest of All, Gunton Park, and Lady Suffield. Cherries are grown under a cage; we put lights over in the summer to keep them dry. If you want the fruit, you must protect the pyramids from rain after commencing to colour. The varieties are Elton's, Black Tartarian, Bigarreau, Black Eagle, Knight's Early Black, and Noble. With regard to vegetables, a quantity are grown nearly a mile away from the kitchen garden, but there is nothing remarkable about them. We obtain, as a rule, very satisfactory results."

"Have you exhibited vegetables, Mr. Rogers?"

"Yes; at Woodbridge, Ipswich, Bury St. Edmunds, Yarmouth, and Norwich. I have exhibited not only vegetables, but plants, flowers, and fruits, for which I have taken many prizes. As to my experiences, they may be summed up in a sentence. I came here as head gardener in 1888, having previously been at Trentham Hall for nearly three years."

ALFRED WILCOX.

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NEXT week's interview will contain a description of a lovely hillside garden in Berkshire.

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On the *Progress of Gardening in Foreign Countries* we have this year little to record. We are gratified to find that though our hints repeatedly given in this Magazine, for planting trees along the railroads, have not been adopted here, yet at Vienna our idea has been entertained (see p. 476.). In the British dominions in India great progress appears to be making in the introduction of European fruits and culinary vegetables, and this is also the case in Southern Australia. (See *Gard. Chron. Index.*)

*Garden Literature.*—Few publications on gardening subjects have appeared in the course of the year. We have completed the *Suburban Horticulturist*. *Gardening for Ladies* and *The Companion to the Ladies' Flower-Garden* (of both which works, and *Botany for Ladies*, we are more proud than of any of our own) have come, the former to a fourth, and the latter to a second, edition. The two *Gardening Newspapers* continue to prosper; the *Chronicle* goes on with its accustomed vigour, and has deservedly attained a very extensive sale. The *Gardeners' Gazette* is now edited by our much esteemed friend Mr. Main (who, if any good and venerable gardening author deserves a pension from government, is the man), and we are happy to learn that it also has increased in sale. There is surely abundance of room for both papers. A rigidly analytical Table of Contents, in addition to the Alphabetical Index now given, would be a great improvement to both works. A Gardening and Agricultural Newspaper has been commenced in Dublin, under the editorship of our friend Mr. Murphy, who conducts it with the greatest ability (see p. 383.).

*Obituary.*—To the names of those enumerated in our Table of Contents is to be added that of the venerable *Mr. John Rogers*, who died Nov. 9. at his residence, Southampton, in the ninety-first year of his age. Throughout the course of a long life, he enjoyed uninterrupted health, and he retained unimpaired all his faculties to the last. He was one of the oldest and most experienced of gardeners and nurserymen, having commenced his career in the Royal Botanic Gardens at Kew, in the year 1768, under the patronage of the late John Aiton, Esq. He had the advantage of a personal acquaintance with the celebrated Philip Miller, and was probably the last individual living who had enjoyed the friendship of that eminent character. Mr. Rogers was the author of many treatises on gardening; and towards the decline of his life he published the result of his experience in two separate works, the *Fruit* and *Vegetable Cultivators*, which contain much practical and useful information. He was the father of Mr. William Rogers of the Southampton Nursery, and assisted in the forming and conducting of that extensive establishment.

feeling infinite regret that so great and good a man in his line should now be no more."

In Kew Church is a mural tablet bearing the inscription:—

> Sacred to the Memory of WILLIAM AITON,
> Gardener to His Majesty King George the Third.
> He died Feb. 2, 1793, aged sixty-two.
>
> Flowers! that assembled from each foreign spot
> Here bloom by royal aid, and bless your lot!
> In circling rays a radiant glory frame,
> Round this memorial of your Aiton's name;
> His patient care, his pure benignant mind,
> Rank and distinction to your tribes assign'd;
> Will you permit no venal bard to bend
> In just regret of Flora's buried friend;
> Tis her's his living monument to raise,
> Proof of his toil and herald of his praise,
> Nor end the plaudits of his virtues here,
> Those who embellish earth to Heaven are dear.

The lines are not good, but the intention doubtless was, and it is pleasant to be able to repeat here so much that is laudatory of the first botanical gardener of the Royal Botanic Gardens, Kew.

W. BOTTING HEMSLEY.

## JOHN ROGERS.

Born at Richmond in Surrey on February 10th, 1752, and entering what were then known as the Royal Gardens, Richmond (but which now form part of the Arboretum at Kew), before he was out of his teens, John Rogers is one of the very first Kewites of whom we have any record. In 1838 he published his "Life and Reminiscences," a very interesting little book, from which we are kindly permitted by the present head of the family—Mr. A. C. Rogers of Southampton—to make the following extracts. To Mr. Rogers are also due the thanks of the Committee for the use of the two portrait blocks of William Aiton and John Rogers.

The latter writes:—"As soon as I was old enough I went to school at Richmond and afterwards to a Classical Seminary in Soho Square, London, the identical house in which Sir Joseph Banks resided. When about eight years old my father took me from Richmond to London to see the funeral of King George II. I returned by the only coach on the road at that time, and the reader can imagine what sort of a vehicle it was when I say the coachman always carried ropes and halters to tie up such parts of the coach as were likely to break down or come apart.

"My father having left it entirely optional with myself to choose the profession I pleased, I soon afterwards, from reading a work just then published, *Every man his own gardener*, by an old friend of my father's,

John Abercrombie, determined to become a gardener. My father soon succeeded in procuring me a situation in the Royal Gardens at Richmond, then under the superintendence of Mr. John Haverfield.

"Most probably there is not a person living [in 1838] besides myself who was personally acquainted with Phillip Miller; and I cannot look back to one of the most pleasing events of my life (my introduction to him) without a reverential feeling of admiration for this deservedly eminent character. Although his fame had spread over the three kingdoms, and even the greater part of Europe, yet he appeared, as it were, unconscious of his renown and was equally distinguished by the unassuming simplicity of his manners as he was by the extent of his genius. His greatest pride while he lived was the being styled 'Gardener to the Worshipful Company of Apothecaries at the Botanic Garden, Chelsea.'

"A visit to Mr. Miller being arranged, I went to Chelsea, where, upon enquiring at the Botanic Gardens, we were informed that he was in the greenhouse. We found Miller, who looked very feeble, arranging some plants. I was introduced as a young man who had a great desire to see the gardens and who had made up his mind to be a gardener. At that word, Miller gave me a look with his sharp penetrating eyes, which although seventy summers have since passed away, is still vividly impressed on my memory. Miller then asked me my age, and upon being told said I should have begun earlier but with industry and perseverance there was plenty of time yet. He ordered one of his men to show us through the different forcing and other houses, and on taking leave kindly shook me by the hand and said, 'Young man, should you again wish to visit the gardens you will be admitted.'

"After my interview with Miller it was with no small feelings of pride and pleasure I put on the blue apron. I remained in Richmond Gardens three years, and through the kindness of a most worthy and talented man, Mr. William Aiton, who, from Mr. Haverfield dying soon after I was in my situation, succeeded to the entire management of the Royal Gardens at Kew and Richmond, I soon became tolerably well versed in the practice of my profession. During my stay in the Royal Gardens I had frequent opportunities of seeing the King (George III.), who at this time resided in a domestic manner at Ormond Lodge [in the Old Deer Park, Richmond]. He would often walk to where we were at work and occasionally ask us questions.

"After leaving Richmond Gardens, I was recommended as head gardener to a gentleman of the name of Pechell. In this situation I remained rather more than three years in the cultivation of my favourite pursuit. With melons and cucumbers I was most successful; and at a melon show on the 12th August, 1776, at East Sheen I gained the first prize.

"In the year 1777 I entered upon an engagement in a more extensive

garden belonging to Geo. Wilbraham, Esq., at Weaverham Hall in Cheshire. While I was there a noble bunch of Syrian grapes weighing 19 lbs. 3 oz. was cut in the Duke of Portland's garden at Welbeck.

"In 1780 I left this place and was engaged by Sir Ed. Dering, Bart., as head gardener at Surrenden in Kent. In this year the disgraceful 'Gordon' riots occurred in London, and I was an eye-witness of the most lawless and appalling sights. One day I beheld the burning of Newgate Prison, which produced the liberation of nearly 300 felons, who escaped, clattering their chains as they went along the streets, and no one daring to stop them.

"After residing at Surrenden about two years I married, but in 1789 left on account of Sir Edward having reduced his establishment. I accepted an engagement by Messrs. Hewett and Smith, of the Brompton Nursery, to travel for the firm. In the year 1789 I went a journey of nearly three thousand miles on horseback. My family was getting large, having been increased on two several occasions by twins; and I therefore determined, if possible, to get permanently settled. I was very fortunate in being engaged by Mr. Matthew Burchell (father of Wm. Burchell, the great traveller) to assist in the management of one of the oldest and best nurseries in England. It was frequently visited by those renowned statesmen Pitt and Fox, Lord Grenville, etc. Here was I actively employed for twenty years, until the retirement of Mr. Burchell."

In 1812 Rogers joined his son William in the management of a nursery at Southampton, and subsequently in 1828 helped to found the famous "Red Lodge Nursery" near that town. On November 9th, 1842, he sank peacefully to rest, in his 91st year, without pain or previous illness, retaining all his faculties to the last. He is interred, with his wife, in the old burial-ground of All Saints, Southampton.

## George Samuel Jenman, F.L.S.

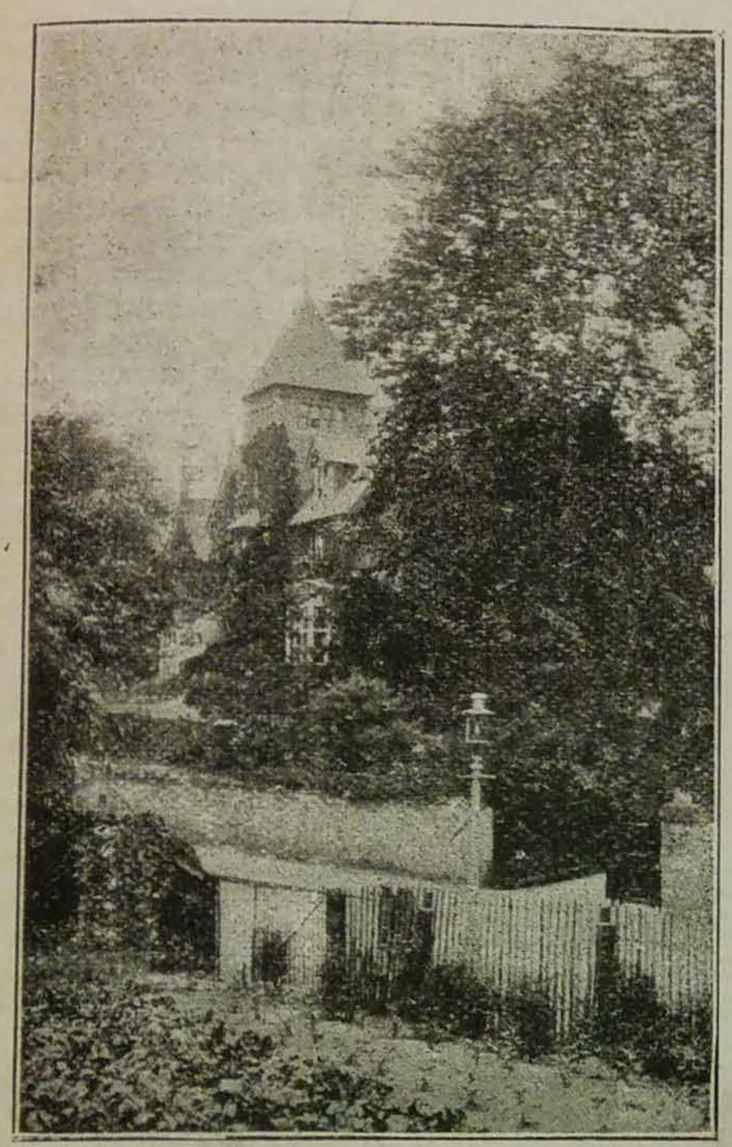
By the death of Mr. Jenman in Georgetown, Demerara, Feb. 28, 1902, the Guild loses its oldest member in the Western Tropics and botany an excellent pteridologist. He had been in failing health for some time, but a fatal termination to the illness, which recently confined him to his room, was not generally anticipated. It was only within the last week or so of his death that the Government decided to grant him long leave of absence in order that he might proceed to England to recruit, as it was fondly hoped, his shattered health.

Mr. Jenman was born near Plymouth in 1845, but early in life he went with his family to the South of Ireland, where his boyhood days were spent. He received his early training in horticulture chiefly in nurseries near Plymouth, and entered the Royal Botanic Gardens, Kew, in 1871. The year following he was promoted to be foreman of the

plants is not great, and that is all the more reason why they should be grown.

**To Water—or Not to Water.**

June 26th.—To water or not to water is a question which arises every summer. The argument for watering is that plants cannot grow, or even live, without moisture; the argument against watering is that, unless the supply is larger than it is generally possible to



FRENCHES FROM THE HIGH ROAD.

give, it encourages the formation of roots near the surface, where they are almost certain to be dried up. But suppose it does. These surface roots, while they lasted, must have supplied some nutriment to the plants, so their formation cannot be considered entirely useless. But that is not all. During the heat of summer, moisture is perpetually evaporating from the ground. It comes from the upper layers, but as they dry they draw upon the layers beneath them, and so the process goes on. If, however, the surface is watered, this drain upon the lower layers ceases for the time, and the roots in it are consequently benefited. Naturally, the benefit is the greatest when the watering is done in the evening, for then the moisture has a longer time to sink into the soil, and the plants have a longer time to make use of it. In my opinion, therefore, even a little water is better than none at all.

**A Fine Cupressus.**

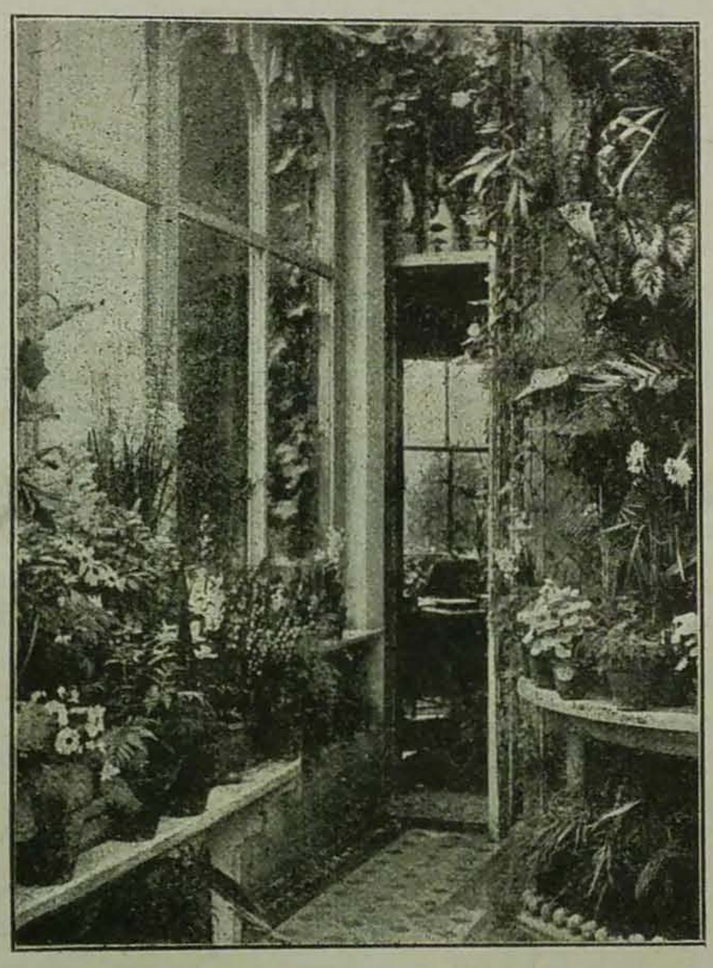
June 27th.—There is a very fine specimen of Cupressus Lawsoniana towering up above the Rhododendrons at Wisley. The green form is a more rapid grower and more easy to manage than the golden. I planted one then ten feet high in spring; yet, though it reached me almost without soil, it has not lost a single shoot. It has had plenty of water in dry weather, and that, no doubt, is the reason why it has done so well. H. C. DAVIDSON.

COTTON-WOOL or wadding should never be used when sending flowers or specimens for naming, as it abstracts all the moisture from the blossoms. A little damp moss is the best material, but even a few leaves or some fresh grass are much better than the first.

# The Gardens at Frenches, Redhill.

INTERVIEW WITH MR. W. ROSE.

THIS year, the Redhill and Reigate Flower and Fruit Show will be held on the 15th of July in the grounds of Mrs. Campion, at Frenches. By her courteous permission, I paid a visit to these charming gardens on May 29th, and, under the guidance of Mr. W. Rose, who has charge of them, found them full of interesting features. Mr. Rose stated at the outset that the old-fashioned style of arrangement largely prevails; but, however that may be, the result is effective. Thus, under the windows of the handsome and imposing-looking mansion, on which are Roses, Ivy, and Magnolias, is a border consisting of Henry Jacoby Geraniums, edged with Centaureas and blue Lobelias, with Abutilon variegata at the back. This combination is quite in keeping with the place, while on the far side of the short carriage drive is a herbaceous border of considerable dimensions, chiefly filled with Rudbeckias,



A CORNER OF THE CONSERVATORY AT FRENCHES.

mixed Iris, Papaver orientale, Phloxes, Delphiniums, and Asters, behind the border being Rhododendrons and Azaleas.

"How does the soil suit Rhododendrons?" I inquired.

"Well enough. My experience is that Rhododendrons do better in clay loam than in peat. The soil here is sandy loam, and it dries up quickly. But I use clay loam for the Rhododendron beds."

**Banks of Flowers.**

"Your principal flower beds seem to be in the shape of banks, which run from a corner of the front of the house right round the upper lawn."

"Yes, that is the scheme, and it is worked out in blocks. For example, the first block is made up of Flower of Spring and West Brighton Gem Geraniums, with a 'V' of Heliotropes. The second block is composed of Geraniums Vesuvius and Bronze Beauty, also with a 'V' of Heliotropes. Next come Albion Geraniums, with flowering shrubs behind—in fact, there are flowering shrubs, generally, behind the whole length of the banks, except in one place, where there is a background of mixed Fuchsias, the block below being filled with Centaureas, Lobelias, and Vesuvius Geraniums, which together give us white, blue, and red."

"How are these raised beds fixed up?"

"For these four beds we use pieces of Fir or Elm, two feet six inches long, drive them in the ground eighteen inches, leaving a foot

Geraniums Flower of Spring, Henry Jacoby, Mrs. Ernest Cannell, and Bronze Beauty. The two succeeding blocks consist, one of dark Heliotropes, and the other of Geraniums Amiere Reve, Flower of Spring, and Madame Crousse, edged with double Arabis."

Here we reached a break, and a singularly ingenious pergola, with a floor made of blocks of wood cut four inches thick, and worked out in the pattern of a star. It is always dry, and not cold to the feet.

"On the pergola itself," said Mr. Rose, "are climbing Roses, Dorothy Perkins and Hiawatha, with a little piece of Aristolochia sipho ('Dutchman's Pipe'). The latter is very easy to grow, and is excellent for covering arbours. I merely planted it and allowed it to run wild, cutting it back when the growth is excessive."

From this point a wide bridge leads to the large field, divided from the gardens by a hedge, and here the show will take place. Some idea of the preparations involved in connection with the show may be gathered from the statement that Mrs. Campion will put up between four and five thousand lights in the grounds.

**Raised Beds.**

Continuing our inspection, I observed:—

"You have Apple trees, as well as Conifers, on the upper lawn."

"Yes, we think that they are attractive, as well as useful. The tree with a spreading Chestnut behind it is Cox's Orange Pippin and others are King of Pippins and Wellington. The raised beds, of which there are two at the end of the upper lawn, filled with Raspail Geraniums, are rather a feature. After the Geraniums are over, we put in bulbs. The four raised beds at the corner of the lawn are

MR. W. ROSE.

above ground, fill up with earth, and then start another tier. Over the woodwork we plant Ivy."

"I see that you hide the stables from view with Roses grown on ropes. When were they planted?"

"Two years ago. The varieties are chiefly Hiawatha and Aglaia. Just here is a bank made with a few pieces of wood, to give it a natural appearance, and Madame Crousse Geraniums, with yellow Marguerites, planted on it. As to the rest of the blocks, there is one with Flower of Spring and Frederick Dubois Geraniums, with Fuchsia fulgens behind; and another similar block, except that Geranium Bronze Beauty is substituted for Flower of Spring. Fuchsias begin to flower in June, and continue till the frosts come. The edging all round the beds is the same—variegated Geranium Dandy, and double blue Lobelias."

"When was the fine conservatory adjoining the house put up?"

"Twenty years ago, by Messrs. Richards, of Darlington. We suffer so much from cold winds that all the sides were made of plate glass. Five years ago I wired cork on the trellis, on which Ferns, Rex Begonias, and Asparagus Sprengeri flourish, and on the roof Cobæa scandens. Of course, we change the flowers according to the seasons, and keep the place as bright as we can. Just now there are in bloom Calceolarias, Spiræas, Roses, Nicotiana Sanderæ, Arums, Schizanthus, and pink and white Fuchsias. The pink Spiræas are the new variety, Queen Alexandra. The Orange tree in flower also fruits. Outside the conservatory is a hedge of Golden Privet, to hide the pots. I may say, before we look at the beds on the upper lawn, that in recent years many changes have been made in the gardens, with a view to add variety."

THE STOVE HOUSE AT FRENCHES.

**Trees on the Lawns.**

"What are the principal beds on the upper lawn?"

"There is one large bed of white Heliotropes, edged with Geranium Madame Crousse, and two beds of Geraniums edged with Souvenir de Charles Turner. One very large bed is devoted to sub-tropical plants, with Pampas Grass in the centre, and Agapanthus umbellatus at the four corners, dotted with Cannas and Lobelia cardinalis, edged with Centaureas. On either side of this bed is a bed of very dwarf Dahlias (Yellow Pet and M. Bruant), and a groundwork of white Alyssums. Under most of the specimen trees are planted Ivy, bulbs, and such flowers as Violas. Round a Cupressus Lawsoniana are yellow Violas. As to the specimen trees themselves, the most notable are Abies Douglassii, Cedar of Lebanon, Taxodium, and Araucaria. The latter appeared to be dying, but since I top-dressed it with new soil, the tree has recovered."

"The beauty of your gardens seems to be very much augmented by the arrangements of lawns in tiers."

"And you notice that there are steps leading down from one lawn to another. On either side of these steps are boxes filled with Geraniums Charles Turner and Albion, and blue Lobelias, the boxes themselves being covered with Ivy. The green path between the Yew hedges, with Geranium Charles Turner on either side, helps to improve the prospect from the balcony looking on to this part of the gardens, which is a favourite resort of the family. On this lawn are some of the Rose beds, one consisting of mixed varieties, edged with Ten-week Stocks. In another large bed, consisting entirely of Roses, are such varieties as La France, the old Monthly Rose, Giant des Batailles, with the Sweet Brier, which is grown for scent as well as foliage. In this quarter, also, is a bed of Heliotropes and Geranium Madame Crousse, and near this bed is an arch covered with Honeysuckle growing over a stem of Heliotrope, the wood of the latter being as hard as Oak."

"You have omitted the Pear trees."

"Two of those are Williams's Bon Chrétien, which were very much eaten up with canker until I gave them a dose of insecticide, which very soon had a good effect. We get good crops of fruit from Beurré Diel, and also from the Quarrenden Apple tree. In the beds on this lawn we make, later in the season, a very good show of Dahlias. The variety on one side is Vivid (red), and, on the other, Whispering Gem (orange)."

"I notice a very fine Medlar tree on the lawn below?"

"Yes, and another feature on the tennis lawn is the Mulberry tree. Both of these bear well. Facing the tennis lawn is another raised bed consisting of Geraniums Henry Jacoby."

Then we passed under a Rose arch, near the pond, to an old ruin, with joints made of white lead, and here Roses and Ivy are cleverly used for purposes of adornment. On the banks of the pond are flowering shrubs, such as Guelder Roses and Lilacs, interspersed with pretty arches, heightened in effect by the gleaming water. Arches are, in fact, turned to remarkably good account in all parts of the garden, and are met with at numerous unexpected points. But the greatest surprise to me was to find, at the end of a shady walk, a very extensive wild garden, with a number of grand old trees.

"This," said Mr. Rose, "was formerly a sand-pit, but it occurred to the late Mr. Campion, who made the place upwards of thirty-five years ago, to convert it into a natural garden. It is about two acres in extent, and we plant all sorts of shrubs and flowers, without regard to order."

Just beyond the wild garden is a summer-house, an octagonal pitch Pine building, of great elegance, designed by Mr. Campion. It is fitted up in the most complete manner, with lavatory and pantry, furnished luxuriously, and has seats all round the paved tiles outside, so that different views of the garden can be obtained. In front of the summer-house is a nice little piece of lawn, and beds on either side filled with Roses.

We next proceeded down the walk to the kitchen garden, where my attention was first attracted by the number of Apples on cordons and on standards.

**The Fruit Arch.**

"Off which of these do you get the best fruit?" I inquired.

"The standards; but we planted the cordons because they look nice and do not give unnecessary shade to the garden. The best varieties of Apples include Stirling Castle, Warner's King, Hawthornden, Blenheim Orange, Cellini Pippin, and The Forge, which is almost a local Apple, and may be used either for dessert or cooking purposes. In addition to Pears in the pleasure gardens, we grow here Beurré Hardy, Fondante d'Automne, Clapp's Favourite, General Todleben, and Marie Louise."

"I suppose some of these varieties grow on your pretty fruit arch?"

"Apples are chiefly grown on the arch, and underneath, as you see, we have Lilies of the Valley, which we have been cutting since the middle of May. Near the arch, in a corner, are some Cape Gooseberries, which, however, are only used for decoration. Raspberries and Loganberries do very well, and near these are the Sweet Peas, in clumps of one variety. With regard to the latter, I am only making experiments with certain varieties, such as Black Knight, Dainty, Gladys Unwin, Henry Eckford, Phyllis Unwin, Pride of St. Albans, Sybil Eckford, Lady Grisel Hamilton, Golden Gleam, Triumph, Duke of Wellington, John Ingman, Countess Spencer, and King Edward VII."

"Have you anything special to say about vegetable cultivation?"

"I have had great difficulties with the soil, which, as I have told you, is sand. Although sand is better than clay, because you can improve it, a great deal of trenching is required. We trenched most of the kitchen garden three feet deep, and the remainder two feet, substituting garden refuse and lime for the pure sand. Before this was done, I only got three dishes of Brussels Sprouts off a considerable length, but the last two years I have obtained from the same length a sufficient quantity to keep me going through the season. The only other point worth mentioning as to vegetables is that we find it much more profitable to grow Asparagus on the flat system than on raised beds."

From the kitchen garden we strolled round the other side of the pond, in the direction of the houses, passing a number of arches cun-

ningly devised to render the appearance of the water more picturesque. Even close to the houses is an arch, with a pillar Rose over Willows and Sycamore. As to the houses, we commenced with a house which was formerly devoted to Pears, but is now being filled with Nectarines and Peaches.

"The varieties of Nectarines," said Mr. Rose, "are Dryden, Cardinal, Lord Napier, Albert Victor, and Rivers' Orange. In this house we also grow Golden Eagle Peach. The next house is devoted to Plums, and, though the trees were planted twenty-two years ago, we still get good crops, the varieties being Prince Englebert, Coe's Golden Drop, Jefferson, and Transparent Gage. Perhaps you do not often see the variety of Peach which is grown in this house. It is called Raymaker's, and is a species of Noblesse. We consider it the best Peach. It is rather pale in colour, but full in flavour and a good cropper. The tree was planted three years ago, and we have the variety in another house. The fruit is gathered in August and September."

"What varieties do you grow in the other Peach houses?"

"Royal George and Sea Eagle, and Nectarines, Rivers' Early Orange and Nonpareil. I discarded the system of setting the fruits with a camelhair brush; these have all been set with the syringe. Both of Peaches and of Grapes we keep up a good succession. There are three Vineries, the first containing Black Hamburgh and Foster's Seedling; the second, Mill Hill Hamburgh, Muscat of Alexandria, Gros Maroc, and Madresfield Court; and in the third, Muscat of Alexandria and Black Alicante. As you see, we have borders inside and outside, but I confess I like them better either one way or the other."

"Do you grow Tomatoes outside?"

"No, only inside, and the two varieties are Sutton's A1 and Sutton's Perfection. Melons and Cucumbers are grown in a house adjoining the stove, the variety of Cucumber being Sutton's Telegraph. In the stove are Crotons, Eucharis, and a few other plants; we also go in for cool Orchids, such as Dendrobium nobile, Odontoglossums, Cypripediums, Cattleyas, and Calanthes."

"What about Chrysanthemums?"

"A fair number of Show blooms are grown, among the best being Countess of Warwick, C. J. Salter, Godfrey's King, General Buller, Gustave Henry, Lady Isabel, W. R. Church, Madame Carnot, Mr. T. Carrington, Mrs. Barclay, Mrs. Mease, etc."

**Zinnias and Stocks.**

"I notice that both Zinnias and Stocks are grown in large quantities. What is your system with them?"

"We sow the seed of Zinnias in cool frames, prick them off, and as soon as the weather is suitable, put them in their places outside. Of all bedding plants, few are cheaper to grow than Stocks. I buy a packet of ten varieties for 7s. 6d. or 10s., sow them in the frame, and get a hundred and twelve dozen plants, which make a great show of flower for nearly three months. They are very little trouble."

"Have you been head gardener here many years, Mr. Rose?"

"Altogether, sixteen years, with an interval. Previously, I was head gardener for ten years to the late Mr. R. Hesketh, at Earlswood Mount. My earlier experience was obtained in the gardens at High Trees, Redhill, and of Mr. Wilson Saunders, of Reigate. I have only exhibited at the local shows, but I have found time during the last four years to act as honorary secretary of the local Gardeners' Mutual Improvement Association, which, I am glad to say, is making excellent progress."

ALFRED WILCOX.

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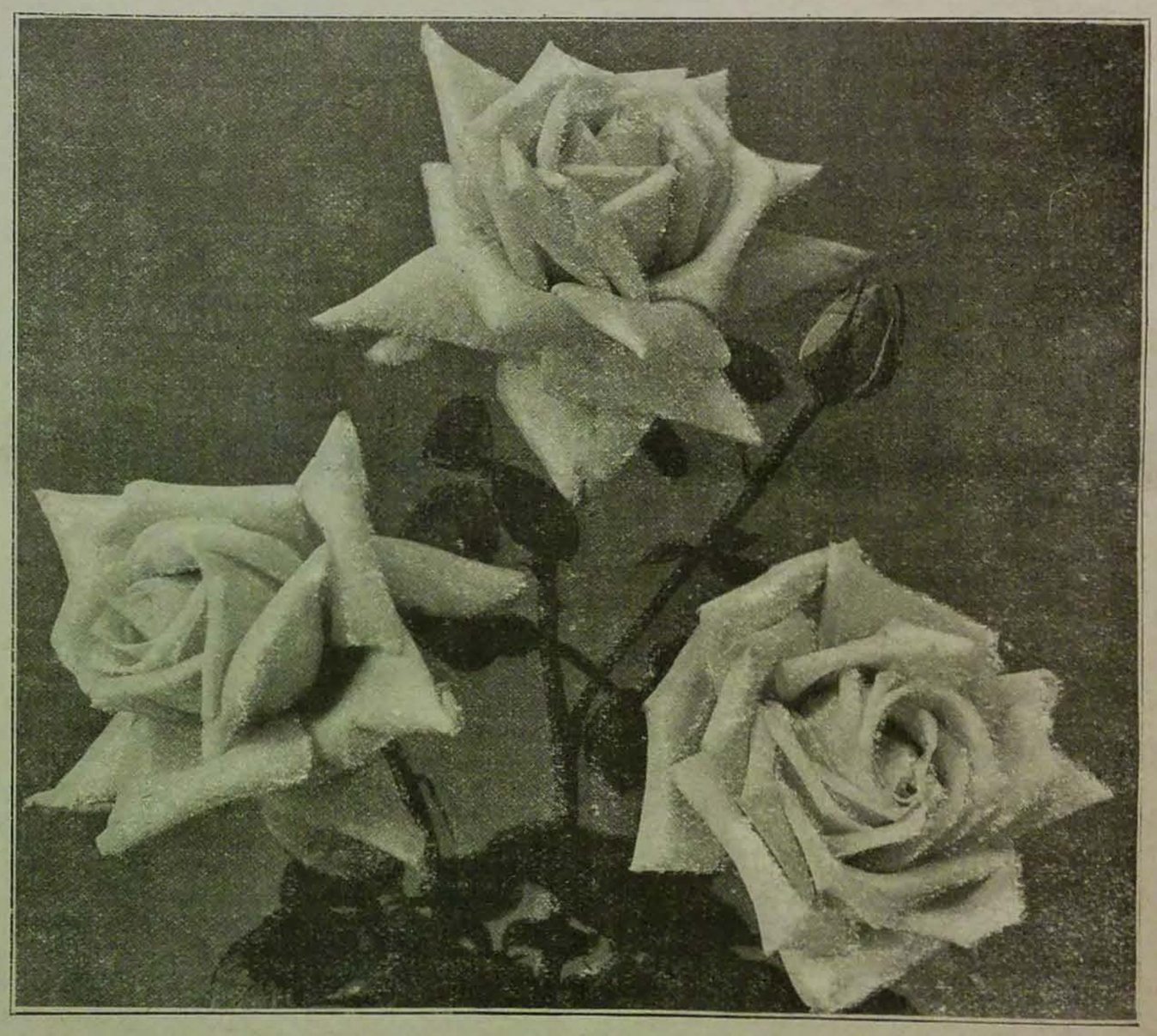
Ivy belongs to the Aralia family. There are only two species of Hedera, one being British and the other Australian.

# Letters from a Lady Gardener.

No. 309.—ROSES, MELONS, AND SUMMER WORK IN THE GARDEN.

DEAR KATE,—My Roses have been very fine this year, Lady Waterlow especially so—a most beautiful climbing Rose, in a rare shade of clear pink, melting to pale yellow in the centre. Most of the newer Roses are not very full-petalled, but as climbers their beauty is conspicuous, for many of them are highly floriferous, producing masses of exquisite colour. Bardou Job is one of them, in deep crimson; Noella Nabonnand is the name of a climbing Rose, with flowers which are remarkably sweet, in dark red velvet; and Lady Waterlow is a mass of bloom. But many of the older Roses are hard to beat. William Allen Richardson, which reaches to the top of the house, is now covered with flowers, almost hiding the foliage; Reve d'Or is very much like it, though rather paler in tint; Niphetos and Maréchal Niel have been in fine bloom in the conservatory; and the posts and chains which edge the terrace are most beautifully wreathed with many of the smaller Roses, such as Allister Stella Gray, as well as the newer Wichuriana hybrids. Of these, Dorothy Perkins is still the queen, for no other Wichuriana Rose is so remarkably beautiful in July; Jersey Beauty, in pale yellow and white, is single, and flowers in June, quickly followed by Edmond Proust, a lovely blossom in pale pink, double, and well shaped, with a carmine centre; and Auguste Barbier has buds in coral-pink, opening into Roses of the same shade, a little paler than the buds—a most effective colour.



ROSE—KAISERIN AUGUSTA VICTORIA.

**Sweet Briers.**

Then the Penzance Sweet Briers (Lucy Bertram and Lady Penzance are two of the best) throw their long wreaths over the pergola, in rich red and coral-pink respectively, and at the other end of the pergola we have an old-fashioned arch of China Roses and Cabbage Roses, most fragrant of all. In the borders, Anna Olivier, Mabel Grant, Madame Lambard, Safrano, Liberty, and Caroline Testout have been supremely lovely amongst many others; and Climbing Caroline Testout forms an arch over the porch entrance, covering it with magnificent blooms in rich pink—a Rose hard to beat in vigour and colour. Marie van Houtte is charming, and quite distinct from the rest (in two shades, pale yellow, tipped with pink)—an old Rose of first-class merit; and the new Pèrle des Jaunes is of a fine yellow colour, with deep crimson foliage, which enhances its beauty.

**Vegetable Seeds to Sow Now.**

To turn to the kitchen garden—don't forget to sow late Carrots at once, if not already done, for they come in just as other vegetables become scarce, and are most acceptable as a vegetable when young. But I advise you to lime the bed well in which the seed is sown, for otherwise wireworms and slugs may attack them, and it is a good plan to dust them with soot or lime several times during the autumn, to keep these enemies at bay. Do not manure the soil for them at this time, except with either of these things. Late Peas, too, may still be sown in a sheltered position; the dwarf varieties are the best for this purpose in a garden where birds abound, as they are far more easily netted than the taller Peas, and we find the larger birds (jays, especially) very destructive to the late crops, although they do not attack the earlier Peas, oddly enough. Lettuce, too, should be sown now for winter, All-the-Year-Round being a useful kind which stands the cold well, here. You should prick out some of the seedlings into a bed of the size which can be covered by a frame, if the garden is exposed and in a cold district; but do not cover them until really

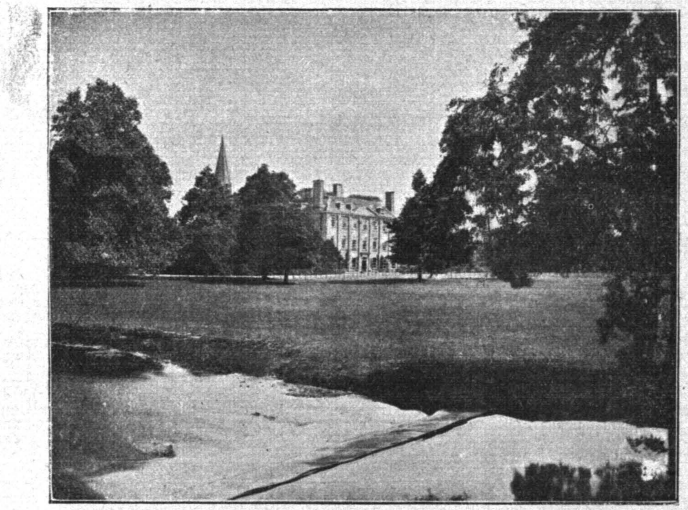
Arum Lilies than among most other kinds of plants. The illustration shows a very curious example. Flower and leaf have been produced on the same stalk, and the leaf is as white as the flower. The cause must be purely accidental, for such freaks are never constant. It is impossible to perpetuate them, which is not to be regretted, for they cannot be called beautiful. Yet, as throwing some light upon the evolution of plant forms, they are not without interest.

H. C. DAVIDSON.

# Famous Gardeners at Home.

No. 170.—MR. CHARLES ROSS, F.R.H.S., AT THE GARDENS, WELFORD PARK, NEWBURY.

NO one has a better claim to be described as a grand old gardener than Mr. Charles Ross, who, although upwards of eighty years of age, still pursues his professional duties at Welford Park, the Berkshire seat of Colonel Archer Houblon. As it is well known, Colonel Archer Houblon himself takes the keenest interest in horticulture, and gives every possible encouragement to his gardeners, whether at Welford Park or Hallingbury Place, in their efforts to succeed as exhibitors or in their experiments in culture. The record of the successes of Mr. Ross is a large one, and I prefer to give it as I heard it from him on the occasion of my visit to the gardens at Welford in November. Beautiful as the Lambourne Valley is, especially in summer, the light railway from Newbury does not at present afford the best possible facilities for travelling. But, perhaps for that very reason, the villages in the valley preserve their old-world appearance, and are not invaded by the ubiquitous tripper. Mr. Ross, who is as alert at fourscore as many at half his age, met me at the primitive little station, and, as we walked through the picturesque park, he explained that since September he has ceased to be responsible for the pleasure grounds, which are now in charge of the gardener of the new tenant, Mr. William Leng. He continues, however, to represent Colonel Archer Houblon, and remains entirely responsible for the glass and kitchen gardens.



WELFORD PARK, NEWBURY.

"You have been here a very long time?" I said, as Mr. Ross pointed out some giant trees which he mentioned he had planted.

"Forty-four years," he replied. "I came on May 1st, 1860, as head gardener to Mr. Charles Eyre, the father of Colonel Archer Houblon, whose name was changed when he succeeded to the Essex estate."

"What was your previous experience?"

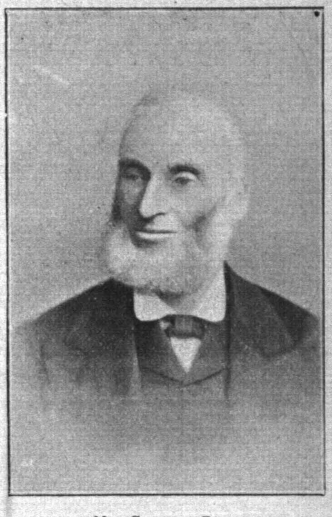
"I commenced my gardening career in Dalmeny Park. My father, after being head gardener at Dundas Castle, Linlithgow, became forester and estate manager to the late Lord Rosebery. In 1846 I left Dalmeny Park for Fullarton House, Ayrshire, and for the next few years spent my time at Middleton Hall, Linlithgow; Blackadder, Berwick; and the nurseries of Messrs. Dickson and Co., in Edinburgh. In March, 1851, I went to Dalkeith Palace gardens, under the late Mr. Charles McIntosh, and there I eventually became general foreman."

"Mr. MacIntosh was a great gardener; was he not?"

"Yes, I learnt much from him, and he kept me hard at work. We had no fewer than fourteen fires to make up, and this meant getting up at half past two every morning in severe weather. Mr. MacIntosh would not permit the forcing-houses to be left unattended either day or night."

"How long did you remain at Dalkeith?"

"Until March, 1854, when I left in order to take up my duties as head gardener at Fairlawn, Kent. My employer, Mr. Joseph Ridgeway, took special interest in Rhododendrons, Conifers, and Melons. While I was at Fairlawn, the Hon. and Rev. Townsend Boscawen, a skilful hybridiser, kindly offered to teach me how to manipulate Rhododendrons so as to effect a cross, and I remember that he was rather surprised when he found that I was well acquainted with the principles of cross-fertilisation. He said that he had not previously met a gardener who understood the matter. I may mention that there is at Fairlawn a fine speci-



MR. CHARLES ROSS.

men of Wellingtonia (Sequoia) gigantea, which I planted in 1856, to commemorate the signing of peace with Russia."

"I suppose that when you planted trees here you practically remade the pleasure grounds?"

"Yes. For instance, you see all the Rhododendrons, Laurels, and other shrubs which are such a feature near the house. I planted nearly two hundred sorts of Rhododendrons alone—of course, by degrees. With regard to the trees, there was a plantation of Douglas Firs when I came, but the specimens on the lawn, now sixty feet high, were planted by me in 1870."

"You did not plant that fine specimen of Picea pinsapo, which must be nearly sixty feet high?"

"It, as a matter of fact, is sixty feet high, and was planted in 1840, long before I came here. But I planted, in 1878, the two specimens of Abies grandis which are now seventy feet high."

"And the Abies homolepis?"

"That is, I believe, the oldest tree of this kind in the country. The date of its introduction from Japan is given as 1870, but when I came in 1860 to Welford Park, I found a tiny plant of it in a pot. I planted it out in the grounds."

"What are its dimensions now?"

"It is forty-eight feet high, the diameter of the spread of branches is twenty-six feet, and the circumference of the trunk, a foot above the ground, is five feet two inches. Other trees worth referring to are the Picea laricio, planted in 1834, now over sixty feet high; Picea Morinda, the slowest-growing among the Firs, which was planted before the Abies grandis, and is still only fifteen feet high, and a Cedrus atlantica, planted, I think, about fifty years ago."

"Did you plant the belt of Yews above the Rhododendrons?"

"Yes, in 1862. Below are beds of Japanese Anemones. I used to have about thirty-six beds, and it took some seventeen thousand plants to fill them. Now there are only fourteen beds. You can see the marks of the old beds upon the lawn still."

"I notice that a Camellia is doing well out of doors."

"It has just been put out of the conservatory. The foliage will stand the frost, but the flowers are affected by it."

MR. ROSS AT THIRTY YEARS OF AGE
(From a Daguerreotype).

At this point we came to the Canal Garden, so-called, as Mr. Ross explained, because a canal runs through it.

"There used to be," he said, "eleven acres of water, but this garden was made before my time."

"Then, the Black Currant bushes were planted before you came?"

"I should say that most of them were planted sixty years ago. They are a very old variety, but do exceedingly well. Others were added forty years ago."

"You grow Violets in cold pits?"

"Yes, the best varieties are de Parme, and Marie Louise. We also grow Neapolitan and Princess of Wales. Cucumbers and Melons are grown in these pits in the summer."

"Does the proximity of the canal affect the Strawberry culture?"

"Not detrimentally. We grow Royal Sovereign, Gunton Park, Waterloo, and have still a few plants of Grove End Scarlet, which is very useful for preserving. It keeps its colour well. Red and White Currants, as well as Pears, Plums, and Morello Cherries, are grown on the walls of this garden."

"I have never seen finer beds of Parsley."

"The variety is Veitch's Curled, and there is no better. It is nicely coloured, and free flowering.

"The kitchen garden proper," continued Mr. Ross, as we entered it, "has the disadvantage of sloping to the north."

"When were the Vines planted in your late Vinery?"

"In 1871. They are nearly all Black Hamburgh and Buckland Sweetwater; a Muscat in the other house, planted in 1862, still bears well. Chrysanthemums, of which some you see have flowered in this house, used to be a feature. At least, we grew between five and six hundred. We have still a number of Japanese and Incurved. The Peach tree of Prince of Wales, in the late house, was planted forty years ago. It still bears well. The Nectarine in this house is Humboldt. In the other house we have Royal George and Violette Hative."

"You have some good specimens of Croton augustifolia in the stove?"

"The variety is Lady Zetland. Crofton Eyreii is a seedling of my own. The stem is red in colour, and the leaves are serrated. I have raised a lot of seedlings, but this is the only one that came to the front."

"You have two orchards adjoining the kitchen garden?"

"Yes, one was made on a swamp, in 1862, and consists chiefly of Apples and a few Plum trees. The other, as you see, runs by the side of the river Lambourne. Quinces, of which I planted a row when I laid out the orchard, do well because the roots of the trees find their way into the water."

"Have you any of the varieties of Apple here with which your name is associated?"

"Several of the original trees are in this orchard. Since I started raising new varieties of Apples by cross-fertilisation, or by the selection of seedlings, I have obtained three first-class certificates and eight awards of merit."

"Which did you raise first?"

"Welford Park Nonsuch was the first to obtain a certificate. It is a seedling from Golden Harvey, the Brandy Apple. I also had a certificate for Armorel, a small dessert Apple, some years ago. I have here the original Charles Ross, which received an award of merit and a first-class certificate in the same year. It is a cross between Peasgood's Nonsuch and Cox's Orange Pippin. I have also had awards of merit for Bella, Paraquet, Opal, Atalanta, and, more recently, for Mrs. Phillimore (a cross between Lord Burleigh and Mr. Gladstone), The Houblon, and The Rival. Both of the latter were obtained by crossing Peasgood's Nonsuch with Cox's Orange Pippin."

"Then, there is Hector Macdonald?"

"That is one of my newest seedlings, for which I got an award of merit at the Royal Horticultural Society's fruit show in the early part of this month, when I showed eighteen varieties. I do not know the parentage. Redwing, the other new seedling, a large, rich-coloured Apple, will be exhibited shortly."

"Have you raised any Pears?"

"Only General Wauchope. I have been trying to cross-fertilise Cornish Gilliflower with Cox's Orange Pippin, but, so far, I have not succeeded in getting seeds. In making these experiments one draws many blanks for a single prize, but if the prize is a good variety, it is worth a lot of work."

Returning to the kitchen garden, we looked into some more houses. One is devoted to Tomatoes, and I inquired the names of the varieties.

"There are four or five," rejoined Mr. Ross. "I had an American variety (Freedom), which did very well. Ham Green Favourite, Polegate, and Maker's Early Prolific are all good varieties. For many years I grew Pines, and won the highest prize ever awarded for four fruits shown at Kensington in 1876, which weighed together over thirty-five pounds. But it does not pay to grow Pines now; the coal bill is too heavy."

"What Melons do you grow?"

"In summer, in another house, I grow Hero of Lockinge, Gunton Park, and various seedlings, of which I have raised a quantity. Of Cucumbers, I prefer, in winter, Lockie's Perfection, and, in summer, Challenger."

"You have a nice show of Celery."

"The variety for winter is Williams' Matchless. Veitch's Superb White and Early Rose are grown earlier. Salsafy has been grown ever since I have been here."

"Did you plant all the Apple trees in the kitchen garden?"

"All but about a dozen. One of the exceptions is Northern Greening, which was planted seventy years ago. It is a very good cooker, and is in use from September to July. This tree has yielded forty-three crops in forty-five years. Another old tree is Scarlet Nonpareil, off which we still get some very good fruit. It is about seventy years old."

Then we went into the Apple room, and here I saw specimens of the fruit of Rival, Paraquet, Charles Ross, Hector Macdonald, Bella, and Redwing. Among the Apples good to look at was Baumann's Red Winter Reinette, but Mr. Ross remarked that it was not so good to eat. To Bramley's Seedling he paid the highest of compliments, for, he said, "It is so strong-growing that it will grow where no other variety will." As at Dalkeith Palace, the Apple room has double walls, and a double roof, to keep the fruit in the best condition.

"You must grow a vast number of varieties of Apples," I remarked.

"I showed seventy-three sorts at the Apple Conference at Chiswick in 1883. That is a good number in a small acreage like Welford."

"And how many sorts of Pears?"

"Between thirty and forty. The soil does not suit Pears so well. The best Pear in the world is Doyenné du Comice."

"Has fruit always been such a feature at Welford?"

"No, twenty years ago bedding was a great feature, and up to quite recently we have had a lot of Ferns and stove plants. But now fruit certainly stands first."

"You have a fine Wellingtonia in front of your own cottage."

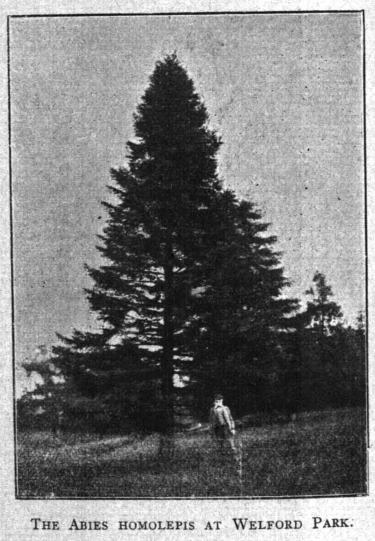
"I planted it, and also the Cedar, at the time the cottage was built for me."

Inside the cottage I asked Mr. Ross to let me see some of the very numerous prizes which he has won; and I found that they included a gold medal of the value of £15 15s., won at Kensington, for Pines, with three silver cups, taken respectively, at Newbury for Ferns, at Reading for a collection of fruit, and again at Newbury for the greatest number of prizes."

"What," I inquired, "were the eighteen varieties of your own raising which you showed this month?"

"Houblon, Rival, Charles Ross, Armorel, Opal, Paraquet, Atalanta, Mrs. Phillimore, Bella, Bertha, Ruddy, Hector Macdonald, Redwing, Tyro, Gospatric, Berkshire Pearmain, Vernon, Lady Alice Eyre, and Welford Park Nonsuch."

"Surely, you are entitled to say that you established a record?"



THE ABIES HOMOLEPIS AT WELFORD PARK.

"I believe that no gardener has ever before shown eighteen varieties of seedlings raised by himself."

"Which were the six varieties that took the first prize for six dishes of dessert Apples at Birmingham on the 8th?"

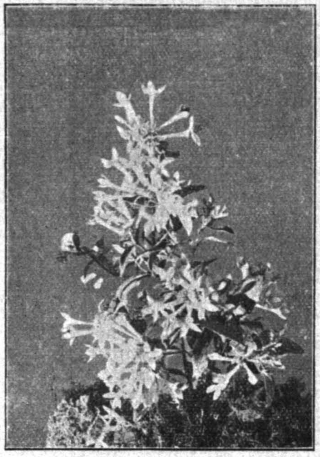
"Houblon, Rival, Charles Ross, Paraquet, Mrs. Phillimore, and Berkshire Pearmain."

"When did you begin showing, Mr. Ross?"

"In 1862. Since then I have taken over twelve hundred prizes, and have shown fruit all over the country. I used to be very successful with foliage plants, Ferns, and Potatoes."

"Tell me about the Potatoes, please?"

"I took prizes at the Crystal Palace and the Alexandra Palace. At one period I raised a number of seedlings. Many went into commerce, but they have worn out now. No Potato lasts more than eight or nine years. My favourite used to be Windsor Castle. I grow



BOUVARDIAS.

a good many Up-to-date, Duke of York, Charles Fidler, Sir John Llewellyn, and Northern Star. I like the look of Sutton's Discovery better than Northern Star. I got nine ounces of seed of the latter, sowed twenty-nine sets, and these sets produced a hundred and eighteen pounds of Potatoes. As long ago as 1875 I competed for prizes offered by an American firm for the most Potatoes grown from a set, and I was third out of ninety-nine entries."

"You were a member of the Fruit Committee of the Royal Horticultural Society for some years, I think?"

"Yes, but I retired in 1896."

"Before I go, I should be very glad if, with your unique experience, and your successes in showing and hybridising, you would tell me any means by which others may hope to emulate your achievements?"

"I have always attached the utmost importance to going about. In 1851, at the time of the great exhibition in Hyde Park, I got leave to visit it, and on different occasions I have been to Kew, Hampton Court, the gardens of the Royal Botanic Society at Regent's Park, and elsewhere, always with the view of trying to learn something. I frequently attend the shows of the Horticultural Society, and I am quite certain that a gardener who wants to make progress should take every opportunity open to him of seeing all that there is to be seen, and of hearing all that is likely to be of profit to him in the pursuit of his vocation."

And, of course, these remarks apply equally as much to amateur gardeners.

ALFRED WILCOX.

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THE Nonpareil is one of the oldest of Apples, and the fruit is of delicious flavour, but, unfortunately, the tree is rather tender, and should only be planted in sheltered positions, with a light, warm soil.

# Letters from a Lady Gardener.

No. 126.—GARDEN FRAMES.

DEAR KATE,—So you want to know what to do with your new frame, which is empty at present, except for a few Chrysanthemums in pots, which have been cut down after flowering in the greenhouse.

Well, so many things may be done with a frame that I hardly know where to begin; and if you had three or four frames it would be all the better, though, unfortunately, in many private gardens these useful places are not much used, and sometimes lie idle all the winter, though they may be used for growing a few Cucumbers in the summer months. First of all, however, we must turn out the Chrysanthemums, and this cannot be done until you have taken all the cuttings you want from them; then the plants can be placed in the ground (if early-flowering), or given away, as the young plants are best for next season, though you can, if you wish, divide the old roots, and repot them for decorative specimens with plenty of blossoms, planting these pieces in a sheltered border of good soil, where they can grow until you pot them up in October.

Having thus cleared your frame, you should take out all the soil to the depth of two or three feet, and fill it in again with leaves to within a foot of the surface, adding a layer of fresh manure if you have it, but the leaves, if of the right sort (Oak leaves are best), will make a gentle hotbed, which will last long, and give steady warmth just enough to keep the frost out, and this is what we want at this time of year. Cover the hotbed (after having it trodden down very firmly by a man, as you are not heavy enough!) with six inches of fine, rich loam, and then make up your mind what you will grow in it. Of course, it isn't half large enough for all the things you might put in, but I will give you a list of them, and you can choose. First, early Potatoes (such as Sir John Llewellyn or Duke of York) can be planted in rows fifteen inches apart; and you can sow Radishes broadcast over the whole, as they will be ready long before the Potatoes, and will come in nicely for breakfast. Choose an early kind (such as the French breakfast Radish), and sow the seed thinly, just covering it with fine, sifted soil, and making it firm in this with the back of the spade, or a piece of board, which we find useful for this purpose. If you prefer to have early Rhubarb and Asparagus, you can raise roots of these things (or buy them ready for forcing), and merely place them on the top of the hotbed, keeping the whole moist with warm water from a rosed can, and also dark. If you have other things in the frame which want light, you can turn a deal box over the roots, or a large flower-pot; and on frosty nights you should cover the frame with mats or straw, keeping leaves round it, too, to add to the warmth. But even in a perfectly cold frame you may grow early Peas, either in the soil, or in pots, but the latter should be hardened off, and planted in the open ground (in rich soil) at the end of March. Dwarf Haricot Beans, too, can be grown early in a frame, and your people will be astonished when they come to table months before those sown in the open ground. Early Carrots, too, are much appreciated—they can be grown in double rows between Potatoes, pulling them whilst young; and Lettuces (such as the dwarf Commodore Nutt variety) will come quickly if sown in slight warmth. A box of fine, rich soil, well drained, may be sown with an early Cauliflower, planting out the seedlings in April; and if you want to gain a prize for Onions at your local show, you might sow a little seed of Ailsa Craig Onion in your frame now, and plant out the seedlings early in April, giving them a rich soil, beaten hard. You really must have a second frame, however, if you devote one to raising early crops, for a frame is indispensable in March, April and May, as a place to harden off all kinds of half-hardy plants raised in heat, Celery included, if you want an early crop.

No sooner are these planted out at the end of May than you will want one of your frames as a summer retreat for Bouvardias, Poinsettias, etc., which then need to be in the open air, yet with the shelter of a frame to give them the moist air they love, at night. All day, of course, the glasses will be raised, to harden their growths, but after the evening syringing (with warm water) the frames should be closed,

THE HOUSE AND GARDEN OF "I.L.R."

## GRAPE PRINCE OF WALES.

This Grape, having now received a First-Class Certificate, after having been given a fair trial in the Royal Horticultural Society's Gardens at Wisley, may be expected to become a standard favourite on account of its handsome appearance, flavour, and keeping qualities. It will be remembered that I was awarded a Knightian Medal and Cultural Commendation for four bunches of this Grape on September 26, 1905 [see figure in *Gardeners' Chronicle*, October 14, 1905], as shown from the Warren House Gardens, Stanmore, from vines planted 18 months previous to that date.

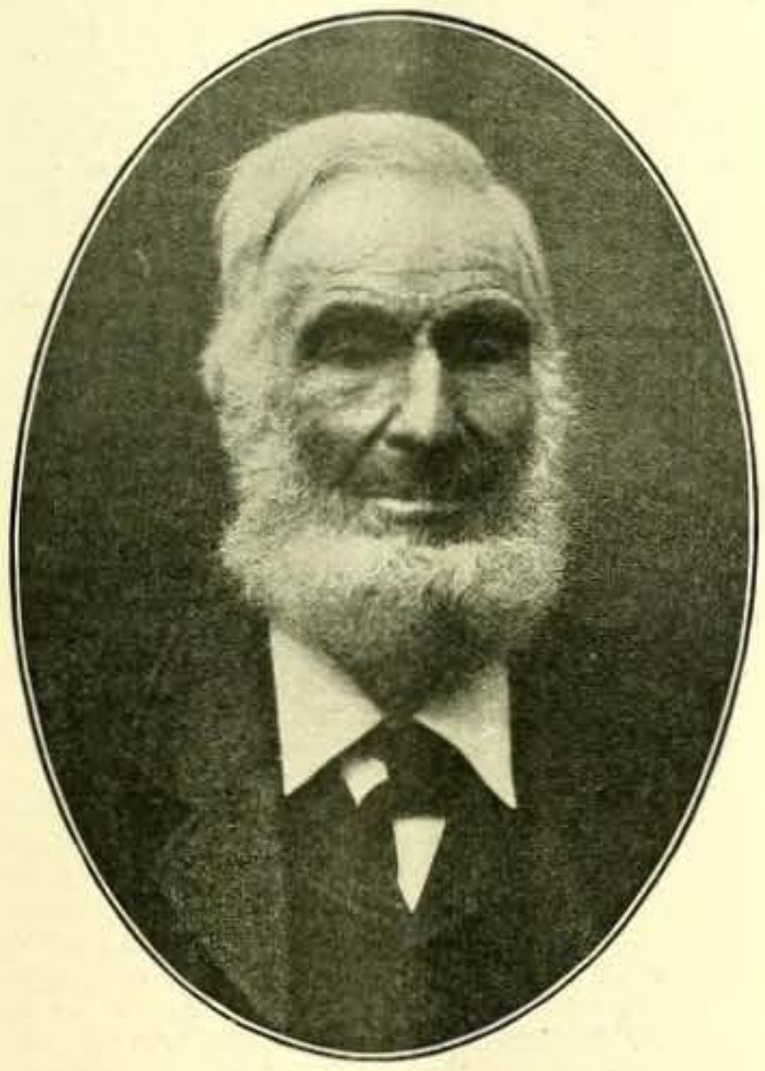
Having tried this Grape in various ways, I may state to intending planters that the vines do best when planted alternately with Black Alicante and Appley Towers, as these two varieties supply abundant pollen. Although "Prince of Wales" may not require much artificial pollination, it is a good plan to distribute plenty of pollen, if shapely, well-shouldered, exhibition bunches are required, and this cannot always be done when one variety alone is cultivated in the house. That noted Grape grower, Mr. T. Lunt, of Kier House Gardens, Dunblane, whilst congratulating me on the above-mentioned bunches, told me he could not succeed with it as a pot vine, and I may say that I do not think it suitable for pots, as it is such a vigorous grower. Good canes should be selected, as a short-jointed as possible, and the roots should be spread out on a carefully-made, but not too deep a border, thus allowing for frequent surface dressings. This Grape was distributed by Messrs. Jas. Veitch and Sons. *C. J. Ellis, Nurseries, Weston-super-Mare.*

## HOME CORRESPONDENCE.

*(The Editor does not hold himself responsible for the opinions expressed by his correspondents.)*

**Parasitic Pests and Diseases.**—In a recent article in the *Gardeners' Chronicle* the writer said, referring to an insect, "I cannot say that unhealthy trees are more likely to be attacked than vigorous ones." Now taking this for a text, I should much like to raise a question. Is there any reason for the very common opinion that unhealthy plants are more liable to the attack of insects and fungi than are those which are healthy and vigorous? I see no reason why they should be. We are fond of our own food in a healthy and succulent condition, and surely there is no reason why the lower forms of life, to the extent of the power of perception, should not have the same preference. Healthy tissue is often likely to be the softer and unhealthy tissue frequently the harder and least easily attacked. Very often indeed one finds the fattest insects upon the most vigorous vegetation. Who, for instance, has not seen fine healthy green fly upon the vigorous shoot of a Rose? I have just observed that the healthiest of Gerberas are as liable to the attacks of mite as any of the weaker ones could be. Of course it must be a fact that unhealthy plants suffer more from a given measure of attack than do healthy and strong specimens. But that is another matter. As to fungi I do not refer to cases where they are, for instance, saprophytic, but when they naturally feed on living tissue they are as well able to deal with it in a healthy state (conditions being favourable) as a cat is to eat a healthy mouse. Why should a cat require unhealthy mice? A cat is perfectly fitted to catch mice, and parasites are perfectly fitted for their own special mode of existence. I believe we lose sight of the fact that parasitism, and consequently disease, as we call it, is perfectly natural—hence a mixing of ideas. *R. Irwin Lynch, Botanic Gardens, Cambridge.*

**Small Holdings.**—The Croydon Allotments and Small Holdings Co-operative Society, Limited, registered under the Provident and Friendly Societies Act, has for its object the securing of land for those who feel that a good living is to be made by proper cultivation of the soil. The membership is already large, considering that the Society has only been in existence about three months, and comprises market gardeners, greengrocers, poultry farmers, fruit growers, beekeepers and others who have been connected with agriculture for a number of years. Application has been made to the Borough Council, on behalf of 31 of the Society's members, for 109 acres of land, and the writer was interviewed, with other prospective small holders, by the Small Holdings Sub-Committee on the 7th instant. So far as can be judged, every effort will be made by that body to procure the land, and as near as possible to Croydon. It is essential that it should not be more than five or six miles away, as it is the intention to supply the town with all kinds of fruits, vegetables and dairy produce. The Society will do its own carting, and, naturally, the local greengrocers and poulterers will patronise the local growers as, by so doing, they will get their produce quicker, fresher and better than they do at present, and be saved the expense of carting. There will be a horticultural department in connection with the Society, the special business of which will be the study of what is best suited to the soil of each small holding (this is important, as there are considerable variations even in a very small plot); lectures will be organised, and specialists invited from different parts of the country to give the small holders the benefit of the latest scientific knowledge in all that relates to agriculture. The project is the result of much careful thought, and those who have put their hand to the plough



MR. CHARLES ROSS, RAISER OF MOST OF THE NEWER APPLES.

will not look back—they are men who have been hard workers all their lives, their interest is in the land, and while they know that the task before them is not a light one, they will enter upon it with a light heart, knowing that by wise and intelligent co-operation success is certain. Any further information relative to the Society will be gladly furnished to those interested by *Henry R. Clifton, Hon. Sec., 38, Grant Road, Croydon, October 15, 1908.*

**Aconitum Wilsonii.**—This Monkshood is truly a charming plant for brightening up the borders in September, when many of the regular occupants are past, especially those with blue flowers. It grows 7 feet high, and displays its deep blue flowers for a long period. *E. M.*

**Japanese Maples.**—Referring to Mr. Clark's remarks on Japanese Maples on p. 273, I think he rather allows his enthusiasm for his subject to carry him away when he states that they are equal to the Laurel in hardiness. The Laurel, though occasionally cut in the Midlands, thrives sufficiently to often become a trouble in shrubberies by smothering better things. The Japanese Maples hardly, as a rule, do more than maintain a miserable existence. I know of a few fair examples in sheltered spots, but anyone planting them freely in this district should be warned that acute disappointment will probably follow. *Chas. E. Pearson, Lowdham, Nottinghamshire.*

## RETIREMENT OF MR. CHARLES ROSS.

Mr. Charles Ross, now in his 84th year, has retired from the Welford Park Gardens, Berkshire. For several years past he has ceased to have charge of the pleasure grounds, his services being limited to the kitchen and fruit gardens, including those seedling Apples and Pears with which his name is associated. These gardens have now been taken over by Mr. W. Pope, formerly of Highclere Gardens, for purely commercial purposes, although Mr. Ross will remain in his garden house till the spring. In his successor, an old and valued friend, Mr. Ross has one who will care for his seedlings, and he himself will have the freest access to them. Born on the Dalmeny Estate, Midlothian, where his father was head gardener to a former Earl of Rosebery, Mr. Ross in course of time passed through Messrs. Dickson & Sons' nursery, Edinburgh, and several private gardens, notably, that of Dalkeith, then under the care of Charles McIntosh, the predecessor of William Thompson. His first place as head gardener was at Fairlawn, Tonbridge, Kent, where he remained six years. Mr. Ross recalls the fact that, in celebration of the peace proclaimed in 1856, at the close of the Crimean War, he planted a Sequoia gigantea at Fairlawn. In 1860 he came to Welford Park, then occupied by Mr. Eyre, where he remained as gardener till the end of last month. Mr. Ross refers in the warmest terms to the generous conditions under which he continued service with Mr. Eyre's son, now known as Colonel Archer Houblon, who resides at Hallingbury Place, Essex. Mr. Ross has obtained wide fame, chiefly in association with new Apples, for as long since as 1892 he raised Welford Park Nonesuch, the parents of which were Golden Harvey and Lamb Abbey Pearmain. Then came Bella, of which Golden Reinette was the seed parent, followed by Atalanta, from Scarlet Nonpareil, and Mrs. Phillimore from Lord Burghley × Mr. Gladstone. It was about 1886 that his famous cross between Cox's Orange Pippin and Peasgood's Nonesuch was effected, and from that cross has come several very fine varieties, inclusive of Charles Ross, a beautiful Apple, which thus so worthily perpetuates its raiser's name. Its original name was Thomas Andrew Knight, and it secured an Award of Merit, but later, having been, by special request, changed to Charles Ross, it obtained a First-Class Certificate. Just prior to that award the variety took first prize for flavour in the class for any other dessert Apple at the R.H.S. fruit show. From the same cross came the Houblon, Rival, and Renown (see fig. 124)—three other superb Apples, the last-named variety having only recently received an Award of Merit. Others from diverse crosses include Paroquet, so named for its beautiful colour. The first-named Apple did not thrive well, and a seedling from it was raised having a good constitution and finer fruit. That is the Paroquet of to-day. A superb Apple is Hector Macdonald, which is a seedling from Lane's Prince Albert. An excellent Apple is Encore, from Warner's King and Old Northern Greening. Excelsior was obtained from Peasgood's Nonesuch × Duke of Devonshire, a superb, roundish, conical Apple, having a small curl at the stem, not unlike that seen on Lemon Pippin. It is a long keeper and a grand cropper. Altogether Mr. Ross has had awarded to his seedlings three First-Class Certificates and ten Awards of Merit—a remarkable record.

In the kitchen gardens at Welford Park there are many other seedlings of both Apples and Pears, and Mr. Ross showed us young trees raised from seeds sown on his 80th birthday four years ago, and now from 3 to 4 feet in height. Besides these, there is a large collection of popular Apples and Pears. Mr. Ross, though now somewhat feeble, remains the mentally vigorous man of earlier days.

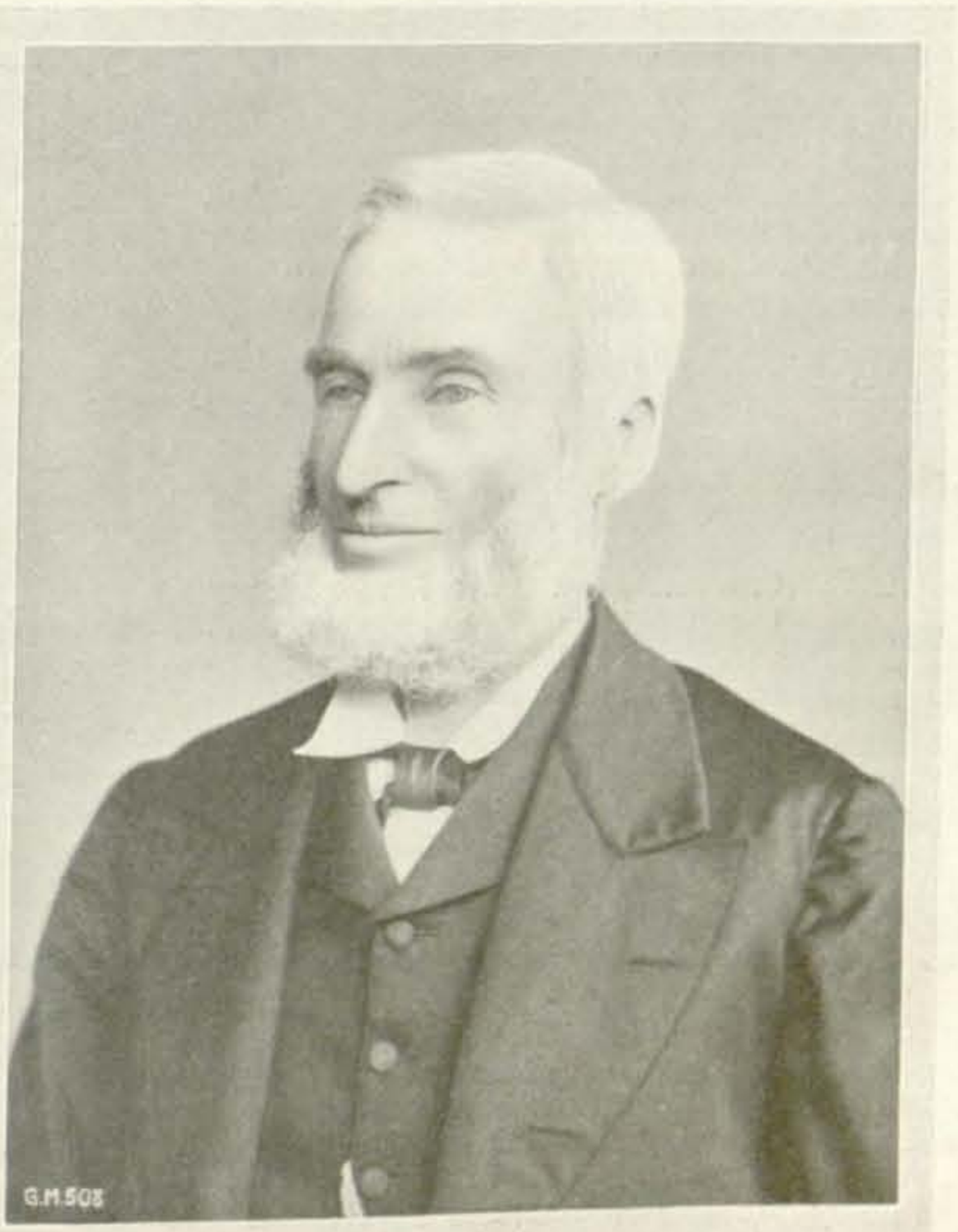
VOL. LI.—No. 2,869. SATURDAY, OCTOBER 24, 1908.

# THE GARDENERS' MAGAZINE.

## NOTES OF THE WEEK.

### Hardy Shrubs for Forcing.

The rapidly increasing popularity of the hardy shrubs that are remarkable for the beauty of their flowers for contributing to the attractions of the conservatory early in the year, is a matter that cannot well fail to give much satisfaction to those who take an active interest in the ornamental aspects of gardening. We have among these shrubs kinds that are distinguished by their elegance of habit, the delightful colouring of their flowers, or some other attribute of beauty; and they are all more or less amenable to the artificial conditions under which it is necessary to place them to ensure the development of their flowers considerably in advance of the usual season of blooming. The finest of the kinds are sufficiently numerous to produce a series of the most varied and delightful colour effects, and to add thereby immensely to the charms that a well-furnished and tastefully arranged conservatory possesses. Few among past generations of gardeners could have had other than a vague idea of the possibilities of shrub culture for flower production under glass; for the number who utilised hardy shrubs for indoor decorations was small, and in no case were they used other than in a very sparing manner. Now it is quite common to find conservatories so liberally embellished with them as to afford a series of displays of exquisite beauty. So generally is the value of hardy shrubs for conservatory decoration recognised that it is somewhat surprising to find anyone to raise an objection to their being so employed; but there are some who do not regard with favour the flowering under glass of shrubs that bloom profusely in the open quite early in the spring season, and produce effects at once distinct and beautiful. We confess to a difficulty in understanding the feelings of those who take up this position, because it is possible to fully appreciate the flowers of shrubs growing under natural conditions after having enjoyed the display produced by those which have had their season of flowering accelerated. Much has been accomplished in the improvement and the extension of the culture of shrubs for forcing, but there is something more to be done before it can be said that further progress is unnecessary. There are still gardens in which their value is not fully recognised, and there are instances in which the selection of kinds should be improved. We would suggest to those who have not used the more beautiful of the flowering shrubs for forcing, to put their utility to a practical test during the forthcoming season by forcing a few of them. With regard to the selection, it may with advantage be pointed out that it is not advisable to have a large number of kinds, but to select a few of the very best and have several examples of each. The lilacs are of special value, for they are unsurpassed in charm of colouring, are delightfully fragrant, and their flowers retain their freshness for a considerable period. If but one group is forced, the lilacs should have the preference, and such varieties as Charles X., Dr. Lindley, Madame Lemoine, Marie Legraye, and Michel Buchner be selected. Next in importance are the forms of Azalea mollis, and if there is no objection to the small additional cost, such fine varieties as Anthony Koster should be selected, otherwise good seedlings should be obtained. Of much value is Prunus triloba, which is so largely grown in Germany for conservatory decoration. This beautiful shrub is admirably adapted for association with the lilacs, and the delicate pink hue of the flowers presents a delightful contrast to the soft colours of the lilacs. The double-flowered peaches have much to recommend them, and the double-flowered cherries are of the highest value. The rose and crimson varieties are the most desirable of the varieties of the double-flowered peach, and the best of the cherries are Cerasus pseudo-cerasus fl.-pl., C. pseudo-cerasus J. H. Veitch, and C. avium fl.-pl. The forms of Pyrus malus floribunda differ materially in decorative value, and the best of those obtainable at ordinary rates is Scheideckeri. Magnolia conspicua, M. Soulangeana, and M. stellata are all useful, but they require to be well set with buds to justify their being forced into bloom. The Philadelphus includes several good forms, notably Lemoinei and Boule d'Argent, both of which are of free growth, and profuse in flowering. Deutzia gracilis, which has long enjoyed considerable popularity for flowering under glass, should be included in the smallest selection, and with it should be associated D. Lemoinei, one of the finest of the white-flowered shrubs. A few of the shrubby spiræas should be included, S. confusa, S. arguta, and S. prunifolia fl.-pl., comprising some of the best. In addition, may be mentioned Viburnum opulus sterile and V. plicatum. There are other good shrubs suitable for forcing, but it is not now necessary to refer to them as our object is not to give an exhaustive list, but to mention a few that possess so much merit that they should have the preference in making a small selection. We need hardly state that in the preparation of shrubs for forcing good cultivation is essential to suc-




MR. CHARLES ROSS.

cess. The plants must be well furnished with fibrous roots, and, if well established in pots, it will be a great advantage; and they must have stout, short-jointed growths, and large plump buds, and there will be no great difficulty in the production of examples of this description provided a generous course of culture is adopted.

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**Mr. Charles Ross,** the veteran gardener and fruit raiser, has done a great deal to make fruit culture more interesting than it used to be. We have great pleasure in presenting our readers with a portrait of Mr. Ross at this time, because this fine old gardener is now proposing to retire from active participation in professional horticulture, and also because Mr. Ross is now quite famous as a raiser of new apples. Born at Dundas Castle Gardens, Linlithgow, on December 22, 1824, Mr. Ross was early taken to Dalmeny Park, where his father became forester and estate manager. Here, under Cuthbertson and Melville, Mr. Ross commenced his gardening career. In 1846 he went to Fullarton House Gardens, Ayrshire, and then spent several years at Middleton Hall, Blackadder, Berwick, and with Messrs. Dickson and Co., of Leith Walk, Edinburgh. On March 3, 1851, Mr. Ross entered service under Charles McIntosh, at Dalkeith, and he was told that his services would not be retained a moment longer than they gave full satisfaction. Young Ross evidently gave satisfaction, for in August of the same year he gained leave of absence for one week, and in that time he visited the Great Exhibition in Hyde Park, Kew Gardens, Hampton Court, the Royal Botanic Society's Gardens at Regent's Park, and the Royal Coliseum. He also subsequently became general foreman at Dalkeith, and this at a time when McIntosh was writing "The Book of the Garden." In 1854 Mr. Ross became head gardener to Mr. Joseph Ridgeway, at Fairlawn, in Kent, and in 1862 he became head gardener at Welford Park, Newbury, where he has remained until now. Colonel and Lady Archer-Houblon, the owners of Welford Park, have nothing but praise for Mr. Ross, and the several tenants have regarded him as a friend. Besides certificates and cups and medals, Mr. Ross has won about 1,200 prizes, largely for fruit. He has raised numerous good apples, such as Charles Ross, The Houblon, Rival, Encore, Renown, etc., and he has long been held in high estimation as a judge of fruits. Though 83 years of age, Mr. Ross is hale and hearty, and walks as briskly as many men a score of years younger, and he was one of the keenest of pomologists at the R.H.S. fruit show last week. That he may for many years continue to have good health, and thus be able to fully enjoy the well-earned rest of retirement is the heartiest wish of his many friends.

**Nomenclature of Orchid Hybrids.**—The following resolution was received by the R.H.S. Scientific Committee at its meeting on the 13th inst. from the Orchid Committee: "That the Scientific Committee be asked to consider and advise upon the proper nomenclature of trigeneric, quadi-generic, and other hybrids, as it appears to the Orchid Committee that not more than two generic names can conveniently be combined in defining the origin of the hybrids." Several letters upon the subject were considered, and suggestions were made as to the best methods of forming names for these hybrids. It was finally proposed by Mr. Veitch, and seconded by Mr. Hurst, that a sub-committee should be formed, to consist of five members of the Scientific Committee and five of the Orchid Committee, who should confer together and further consider the subject. This was carried, and Dr. Rendle, Messrs. Bowles, Fawcett, Hurst, and Rolfe were appointed to represent the Scientific Committee.

**Improvements at Balmoral.**—The King has decided to make several alterations in the grounds and plantations of Balmoral Castle. A considerable number of trees are to be cut down, and many of the newer kinds of trees and shrubs will be planted. The alterations will be made in accordance with plans prepared by Lord Redesdale, and will be carried out during the ensuing winter and spring.

**Union of Gardeners' Societies.**—On the second day of the Royal Horticultural Society's exhibition of British grown fruit, the first annual meeting of the Gardeners' Mutual Improvement Associations in affiliation with the R.H.S. was held at the Horticultural Hall. The Rev. W. Wilks presided, and there was a large attendance, the No. 1 Committee Room being crowded with delegates. The report presented was satisfactory, both as regards the number of societies in affiliation and the provisions made for meeting the requirements of societies in need of lectures. The business proceedings were of short duration, and within a quarter of an hour of the chair having been taken the meeting proceeded to the consideration of the two subjects that had been arranged for discussion. One of these was the definition of an amateur, and the other, methods of competition at public exhibition. The discussion on the first subject was opened in an admirable manner by the representative of the Radlett Society, and the second with a paper read by Mr Jay, of St. Barabas, Sutton, which evoked considerable criticism. It is somewhat remarkable that the whole of the meeting should have been occupied by the discussion of questions that more immediately concern horticultural societies holding annual exhibitions, instead of some portion at least being devoted to matters that concern mutual improvement societies. One representative made a vigorous protest against the meeting having been devoted to exhibition questions.

**Franco-British Exhibition Awards.**—The list of awards made to British exhibitors at the Franco-British Exhibition has been published; and from this we learn that the following awards have been made in the classes for horticultural products and appliances. In Class 46 for trees, shrubs, and ornamental plants and flowers, the awards made were: Diploma for Grand Prize, Messrs. Sutton and Sons, Reading, and Messrs. James Carter and Co., High Holborn, W.C.; Diploma for Gold Medal, Messrs. Kelway and Son, Langport, Messrs. J. Cheal and Sons, Crawley, and Messrs. Carter Page and Co., London Wall, E.C.; Diploma for Silver Medal, Miss Babbington. In Class 48 for horticulture and nursery seeds, the awards were: Diploma for Grand Prize, Messrs. Sutton and Sons and Messrs. J. Carter and Co.; Diploma for Gold Medal, Messrs. Stead and Co.; Diploma for Silver Medal, Mr. J. Osborn. In Class 43 for appliances and processes used in horticulture and arboriculture, the awards were: Diploma for Grand Prize, Mr. Alex. Hamilton, Bromsgrove; Diploma of Honour, Mr. J. Burn; Diploma for Silver Medal, Messrs. J. Carter and Co., Mr. G. W. Riley, and Messrs. H. and J. Cæsar; and Diploma for Honourable Mention, Messrs. F. Reddaway and Co., Lim. In Class 58 for preserved vegetables, fruits, etc., the Horticultural College was awarded the Diploma for Gold Medal.

**What Constitutes an Amateur?**—This question was discussed at some length, and we hope with considerable profit, at the meeting of Gardeners' Mutual Improvement Associations, which was held at the Horticultural Hall on the 17th inst. The discussion was opened by the representative of the Radlett Society, who described what had been done by his society with a view to place the amateur in his rightful position. Considerable success, it would appear, had been achieved, but the practice that had been adopted seemed rather faulty. Other representatives proceeded to state their views, which were of a most divergent character, and the discussion soon made it evident that many of the difficulties that had arisen had been due to a failure to appreciate the fact that all who take an interest in gardening and do not regularly sell the produce of their gardens are amateurs. Much confusion has arisen from the practice that obtains in some societies of describing certain classes open to gardeners without restriction as to the number of men employed, others to gardeners with one or two assistants, and some to single-handed gardeners. Mr. Wilks, who presided, submitted a scheme for the classification of exhibitors who are not engaged in commercial horticulture, and, as this is based on the proper definition of an amateur, its general adoption would be an immense advantage. Briefly stated, Mr. Wilks divided amateurs into four classes, namely, those who employ a gardener with a considerable number of men under him; those who have a gardener with one or two assistants; those who employ a gardener without assistance, and those who do the work of their garden themselves, with or without occasional assistance. Mr. Wilks directed attention to the importance of great care in the drawing up of regulations relating to the classification of amateurs, so that there may be no ambiguity in the wording. At the close of the discussion Mr. Wilks promised to send a copy of his scheme to the societies in affiliation, so that the several committees may have an opportunity of fully considering it, and adopting it if they should be so disposed.

**A Conference of Fruit Growers** will be held at the South-Eastern Agricultural College, Wye, Kent, on November 27, under the chairmanship of Mr. C. W. Radcliffe Cooke, president of the National Association of English Cidermakers. "Insecticides" will be discussed by Mr. Spencer Pickering, F.R.S., "Spraying and Spraying Machinery," by Mr. E. S. Salmon, and "Grading and Packing" by a representative from British Columbia.

**Purchase of Small Holdings.**—It is not yet fully recognised that, in addition to the powers which are given to County Councils by the Acts of 1892 and 1907 for the purchase or hiring of land for small holdings, they are empowered by section 17 of the Act of 1892 to advance money to sitting tenants of small holdings to enable them to purchase their holdings. In this connection it is most interesting to learn that in consequence of the sale of the Penrhyn and Vaynol estates in Carnarvonshire sixty-eight of the tenants applied to the County Council for advances to enable them to purchase their holdings, and sums amounting to £4,436 have been advanced by the Council for the purpose.

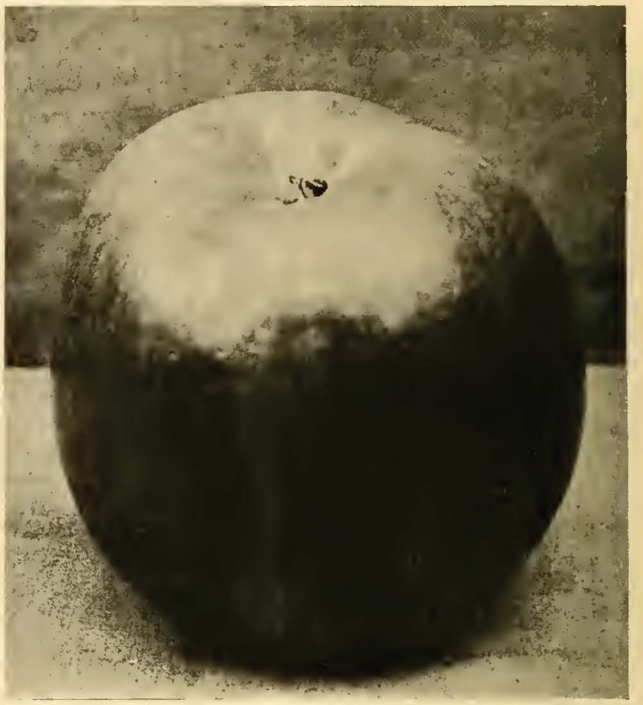
effective drainage, laying down pipes 3 feet deep for the carrying away of surplus moisture. One drain will be sufficient. The next thing to do will be to trench the ground 2½ feet deep over a 12-feet square where the Vine is to be planted. Before starting the trenching there should be prepared a good cartload of material ready to mix with the natural soil, composed of the following ingredients: To five barrow-loads of turfy soil add two barrow-loads of old bricks broken to the size of hen's eggs, one barrow-load of old plaster or mortar rubble, one barrow-load of well-decayed manure, half a barrow-load of quarter-inch bones and the same of fresh lime and of bone-dust. This must be thoroughly mixed with the natural soil in trenching, and a similar proportion of the worst and heaviest soil thrown out and wheeled away as trenching proceeds, to make room for the new soil. This treatment will raise the temperature of the ground by many degrees, and will form an ideal medium for the healthy growth of the Vine. In the case of lighter soil resting on a subsoil of gravel or some other porous material the drain may be omitted and also the broken bricks; but all the other constituents mentioned should be added at the time of trenching, and some of the poorer soil taken away to make room for the new. It sometimes happens that a path or some other obstruction is in the way, and in this case it must be broken up and relaid afterwards over the border; it will do no harm to the Vine, as the latter likes firm soil to root in.

*Planting.*—Any time in October or up to the end of November will do very well, or in spring from the end of February to the middle of April. A one year old Vine is the best, and by this I mean one propagated last spring—not a cut-back plant. With a fork prepare a hole, 15 inches square and 4 inches deep, in the border close to the wall where the Vine is to be placed, and have ready a small quantity of finer soil (the same as the border soil, only passed through an inch-mesh sieve) for placing among the roots of the young Vine in planting. Turn the Vine out of its pot and shake away all the soil from its roots. Cut the ends of the strongest ones back by a few inches, disentangle them all as much as possible, lay them in the bottom of the hole, having pressed it firmly first, spread out the roots evenly, and with the hands place the prepared Vine soil carefully and firmly among and over the roots until the level of the surface of the border is reached.

Shorten the Vine rod to half its length and tie securely to a stake. Early in January it should be again cut to within 3 inches of its base. Early in November place a mulch of half-decayed strawy manure over the roots and round the stem. This will protect the roots against too much wet in winter, which is more detrimental than hard frost.

The Vine may be left without further notice until spring, when I hope to revert again to the subject, giving details of spring and summer culture. The Vine should have a good watering as soon as planted. The only varieties to be depended on for this purpose are the Black Hamburgh, the Sweetwater, Black Cluster, Royal Muscadine and Reine Olga, a new black variety of great promise.

OWEN THOMAS.



THE APPLE ENCORE, RAISED BY MR. C. ROSS. *(Much reduced.)*

## WORKERS AMONG THE FRUIT.

### MR. CHARLES ROSS.

As we intimated recently, this venerable and highly-esteemed gardener resigned his position as head-gardener to Colonel Archer-Houblon, Welford Park, Newbury, Berkshire, at the close of last month, after a service of almost forty-nine years. This estimable gardener, now in his eighty-fourth year, is yet happily in full enjoyment of mental energy and experience. We trust that many years of such mental vigour and of much physical activity may be his. Mr. Ross has, it may be said, more than any other raiser made his mark on the Apple. He has devoted fully forty years to the work of intercrossing varieties specially with the object of producing, if possible, a superior race of dessert Apples, and, as results have shown, not without material success. No doubt his greatest success was with the Peasgood's Nonsuch and Cox's Orange Pippin cross, two Apples of widely dissimilar character, but from which came the variety which bears the veteran's name, Charles Ross, also The Houblon and Rival, both very fine varieties. Charles Ross has, when it is grown large, very much of the quality of Peasgood's Nonsuch; but when grown small on older trees and not too liberally fed, the fruits have very fine flavour. There are few more striking figures in the world of fruit than this fine old gardener, who has been not only a distinguished raiser of fruits, but a faithful servant for many years.

It has fallen to Mr. Ross to obtain from the Royal Horticultural Society no less than three first-class certificates for Apples and ten awards of merit. Even now he has other fine seedlings to be presented, and some of these will doubtless add to the list of honours. Besides the three named, Welford Park Nonsuch (raised in 1892), Bella, Armorel, Atalanta, Mrs. Phillimore, Rival, Paroquet, Hector Macdonald, Encore, Ruddy and Opal are of his raising and are in commerce.

THE WELL-KNOWN DESSERT APPLE CHARLES ROSS. *(Much reduced.)*

A very fine late cooking variety is Excelsior; this has not yet been offered to public notice. A few years since the Royal Horticultural Society presented Mr. Ross with a Hogg Memorial medal as evidence of its appreciation of the work he had done in Apple-breeding. Mr. Ross is of Scotch extraction, his father having been head-gardener to a former Earl of Rosebery at Dalmeny, Midlothian.

As a youth he served several years in various good Scotch gardens, including Dalkeith, under the famous McIntosh; and later took the first position as head-gardener at Fairlawn, Kent. While there he planted a Wellingtonia gigantea as a memorial of the Celebration of Peace after the Crimean War in 1856. It was in 1860 he removed to Welford Park, and was head-gardener there for the long period named, securing the warm esteem of his employers, neighbours and friends. From their origin till this year he has not missed the Royal Horticultural Society's fruit shows as exhibitor or as judge.

# THE KITCHEN GARDEN.

## THE ART OF TRENCHING AND MANURING.

*(Continued from page 574.)*

USES OF TRENCHING.—As a means towards carrying out the above principles of (1) aëration, (2) regulation of temperature, (3) drainage and (4) soil nourishment the operation of trenching is of the greatest possible value, by reason of the opportunities it affords for pulverising and granulating the soil and for exposing it to atmospheric influences, thus improving both its mechanical texture and fertility and encouraging the healthy action of manures.

*How to do the Work.*—By trenching is, of course, understood digging the ground at least two spits in depth. In the kitchen garden, trenching three spits deep is desirable; the work should be carried out thoroughly once during each year. Herbaceous borders should be trenched two spits deep every third year at least, and this will give opportunity for the division and replanting of perennials. For the ordinary work of trenching two spits deep, commence by marking out a trench, 18 inches wide, across the surface of the plot or border, and remove the soil dug out to the place where it is desired to finish the work. The condition of the soil should be considered before deciding the question of complete or partial inversion; usually, however, it will be found that what is required is to deepen the tilth by allowing it slowly to assimilate with the barren subsoil, and thus also to improve the latter by the gradual exposure of a portion at a time. Having removed two spits' depth of soil from the first trench, loosen the bottom to a depth of 6 inches. Manuring, on which subject some notes will be found at the conclusion of this article, should begin here. Proceed to mark out the next trench and cut down to the depth of a spit. A sprinkling of Vaporite — against the ravages of the wireworm—may be given over the now equal surfaces of the two trenches. Dig out the remainder of the first spit of the second trench, placing the soil on the top of that already turned into the first trench. Here may be incorporated some other manure or fertiliser. Take out the second spit of the second trench and fill up the first with the soil dug out. These processes will be repeated until the entire plot has been worked, the last trench being filled with the soil removed from the first.

*The Use of Manuring.*—At the time of trenching, the nature and condition of the soil and the kind of crops to be grown must be carefully considered in deciding what materials are needed for enriching, lightening, &c. Here, again, it will only be found possible to indicate a few guiding principles, which will, it is hoped, be supplemented by a deeper study of the subject. Lime or chalk is an essential to soil fertility, not only because, except in a few special cases, it provides a real plant food, but because it is necessary for the preparation, retention and distribution of plant foods already to be found in the soil and in manures. If doubt exists as to whether or no a soil requires liming, a mixed sample may be tested by placing it in a tumbler and pouring on it a wineglassful of muriatic acid. If the mixture does not fizz and bubble freely the soil is shown to be in need of lime, and a dressing of this should in some suitable form be carefully applied. The effect of chalk and humus, *i.e.*, the organic matter of soils, upon one another is very rapid. Together their work is of the greatest possible value, both in regard to soil warmth, drainage and nutriment. As the principal object of manuring lies in the maintenance in the soil of a sufficiency of humus, it will be found that dressings of farmyard and stable manure, leaf-mould and green garden crops may almost invariably be applied with safety. When the materials used are not well decayed they should be applied as a

MR. CHARLES ROSS.

bottom dressing only, so as to avoid the risk of injury to roots occasioned by contact with manures in a fresh state. Heavy soils are rendered lighter, more porous and more generally friable by the use of organic manure, while light soils are by the same means helped to retain moisture. The evolution of carbonic acid caused by manuring in this way assists in liberation of potash and corrosion of phosphates in the soil, while it also causes the retention and distribution, as required, of ammonia and of potash. Since nitrate, phosphate and potash are all necessary as plant foods —nitrate for promotion of growth, phosphate for increase in fruitfulness and potash for improvement in quality—the immense benefit of manuring as an indirect means towards plant nourishment will at once be clearly seen. If, in addition, the plant food directly supplied by organic manures, which is relatively small in amount, be carefully supplemented by applying suitable fertilisers of the artificial or inorganic description, a high state of soil fertility will in time be reached, a state which should be easy to maintain by continuing at regular intervals the operations here described, supplementing them by frequent surface cultivation with the fork and hoe. H. C.

# THE FLOWER GARDEN.

## ALSTRŒMERIAS AND THEIR CULTURE.

THIS genus of pretty Amaryllids from South America is but poorly represented in gardens, for out of fifty species known to botanists but six are in cultivation, and of these only three are widely known. Judging from Mr. Baker's description of these plants in his "Handbook of Amaryllidæ," there are many that would prove of great interest and value as garden plants, while a few appear to be better than anything we have at present. Several of the strangers are doubtfully hardy, although it is likely they would do well where A. pulchella succeeds, and that a light soil and a warm position are all they would require. There is a general lack of absolute hardihood in most of the Alstrœmerias grown to-day. They may thrive for years unprotected and yet succumb to a protracted frost of unusual severity, or they may fail to survive the frosts of the first mild winter unless the fascicled roots are deeply buried, the soil made firm about them and the growths protected with litter should they appear too early.

*A. aurantiaca* is the common Herb Lily, an invaluable border plant worth a lot more attention than it generally gets. It bears quantities of orange-coloured, green-tipped flowers, streaked rich bronzy red internally and arranged in umbels. The stems vary from 2 feet to 4 feet in length, according to cultivation. There are several garden forms, of which aurea (rich yellow and but faintly streaked) and lutea (a pale yellow unspotted form) are good.

*A. hæmantha* is a very highly-coloured Alstrœmeria, with all the good attributes of A. aurantiaca. It has deep blood red flowers of similar size and shape. The true plant is somewhat rare and apparently more tender than a spurious plant; really a highly-coloured aurantiaca. It is the more showy of the whole family, the petals being very broad, expanding fully, while the buds show the olive green tips in relief with the deep red of the petals. It hails from Chili, and was at one time more common in gardens than it is to-day. In cold, wet districts, where it fails to grow well, it should be afforded house-room. Albida, its white form, is not a refined plant; the white is a poor grey at its best, and the greenish tips change from green to a nondescript yellow.

*A. Ligtu*, more widely known under Dr. Phillipi's name, A. chilœnsis, is represented in gardens by a series of very beautiful forms varying from white through pink, lilac and red to crimson. The growths are quite deciduous, attaining a height of 3 feet to 4 feet, bearing large compound umbels of ten to forty flowers, 1½ inches to 2 inches across the petals of each, and often 18 inches across the entire inflorescence. Every flower is regularly striped a darker shade of the same colouring and flushed externally with purple. The finest of this series known to me is the beautiful variety Mrs. Salter. The variety pulchra is a refined variety of variable colouring, the flowers of which are as regular as a florist's Amaryllis and very shapely. These and many other forms of A. Ligtu grow well in any light, warm border, requiring the protection of light litter when newly planted and during very sharp, wintry weather, especially if the soil is very wet at the time of freezing. These forms of Alstrœmeria are invaluable for their yield of cut flowers; sheaves after sheaves may be gathered from old-established cultivated clumps, and they never wear out and lose vigour if they can spread at will or are surface-mulched occasionally. The species is very widespread in Chili, and scores of forms have received distinct names.

*A. pelegrina* is a more tender species of tall growth, requiring greenhouse treatment and a

# People You Hear About.

## MR. CHARLES ROSS.

To Mr. Charles Ross must be given the title of the "Grand Old Man of Gardening," for, until his retirement a few years ago, he had been actively engaged in his profession from about 1840. His father was a famous gardener in his day, and finally became forester and estate manager to the Earl of Rosebery, grandfather of the present earl. Here Mr. Ross commenced his gardening career, leaving in 1846 for Fullarton House, Ayrshire. The next five years were spent in gaining experience in celebrated gardens in Linlithgow and Berwick, and the nurseries of Dickson and Co., Edinburgh; and early in 1851 he went to the gardens of Dalkeith Palace, then in charge of Mr. Charles McIntosh, one of the horticultural giants of that generation.

MR. CHARLES ROSS.

Under Mr. McIntosh Mr. Ross remained for three years, acquiring much valuable knowledge, and finally rising to the position of general foreman. His next step brought him down South, for in 1854 he became head gardener at Fairlawn Park, near Tonbridge. It is interesting to note that at this place there is a fine specimen of the Wellingtonia (Sequoia gigantea), which Mr. Ross planted in 1856 to commemorate the signing of peace with Russia at the close of the Crimean war.

On May 1st, 1860, another change was made, when he went as head gardener to Mr. Charles Eyre, at Welford Park, Newbury, Berks. This was Mr. Ross's last move, for he remained here until he finally retired, full of years and honours, a comparatively short time back.

In his early days Mr. Ross had been greatly interested in the subject of cross-fertilisation, and at Welford Park he applied his knowledge to many useful purposes. One of the chief of these, and one with which his name will always be associated, was the raising of new varieties of Apples. Among these are some which are considered the best in cultivation. Rival, Charles Ross, Encore, and The Houblon are now well-known varieties, and others of his raising are Welford Park Nonsuch (the first with which he obtained a First-class Certificate), Hector Macdonald, Bella, Paraquet, Opal, Atalanta, Mrs. Phillimore, Armorel, Bertha, Ruddy, Lady Alice Eyre, Berkshire Pearmain, Tyro, Redwing, Gospatrick, and Vernon—not a bad list for one man. For many years Mr. Ross was a member of the Fruit Committee of the Royal Horticultural Society, but he retired from this in 1896. Eight years ago he was awarded the Victorian Medal of Honour.

As an exhibitor Mr. Ross was for a long time in the front rank. To recount his successes would be impossible, for the first of them goes back to 1862, and during his career totalled close on thirteen hundred. Fruit was his strong point, but he was also very successful with foliage plants, Ferns, and Potatoes. In the days when the growing of Pineapples set the hall-mark on the gardener's fame, he won the highest prize ever offered for four fruits, which together weighed over thirty-five pounds.

THE FLOWERS OF THE IXIA.

## THE IXIA.

Most people admire the graceful form of the Ixia or African Corn Lily, which, combined with the many delightful shades of colour—which range through white, pink, rose, crimson, orange, and yellow—make it a most desirable subject for pot culture. But it is not grown out of doors as often as it might be. It is certainly not quite hardy, but by selecting a sunny site, with fairly light soil, and shelter from the cutting winds of spring, it presents no difficulties. This is one of the bulbs which, by reason of its doubtful hardiness, it is not advisable to plant too soon, December being as good a month as any. Planted early, it starts into growth before winter is far advanced, and the shoots then get damaged by frost.

Before proceeding to plant, dig over the soil, and if it is at all heavy, lighten it with leaf-mould, sand, or road grit. It is likewise a good plan to raise the bed three or four inches above the surrounding level to ensure its being better drained. Plant the bulbs three inches deep and two inches apart, dropping a little sand in the bottom of the hole, for the bulb to rest on, and also putting a little over it. As a further precaution, cover the bed with straw, dead leaves, bracken, or other similar material, removing it some time in March, according to the nature of the season.

## THE BLACK POPLAR.

In many gardens it is considered advisable to plant a row of trees, to act perhaps as a screen from overseeing neighbours, or to break the force of the wind, or to afford shade in hot weather. One of the best subjects for this purpose is the Black Poplar (Populus nigra) and its variety, the Lombardy Poplar (P. n. fastigiata). They are of very rapid growth; a small tree of four or five inches in circumference will, in ten or twelve years, have a trunk over three feet round.

These trees are deciduous—that is, they shed their leaves in winter—consequently, spring-flowering bulbs may be planted beneath them. Further, they may be cut back to keep them within any desired limit.

These Poplars will not thrive in a hot, dry soil, nor, on the other hand, in one where there is a lot of stagnant moisture at their roots. The best soil is a deep loam, somewhat tenacious and moist. In dry weather, for the first season or two after planting, they should be given frequent soakings, unless the soil is naturally moist. They are excellent trees for towns, and also for marshy ground.

To ensure compliance with the lighting regulations, the future fortnightly meetings of the Royal Horticultural Society will close at 4.30 p.m.

# Garden Life "At Home."

IN the campaign against extravagance in food and the indulgence in many luxurious dishes, we women can, I believe, render signal service. After all, the arrangement of the household menu falls within our province, and it behoves us to try to produce satisfactory results with fewer materials. This is not a difficult thing to do, if only we drop some of our prejudices, and press into our service the numerous articles of food the vegetable kingdom offers. We have been too long content to rely on certain vegetables—such as Potatoes, Beans, Peas, the Cabbage family, and others in general use—and to disregard all what I may call the less-known vegetables. Some of those I have mentioned are, I admit, of the greatest food value, but where we want a little change or variety we might well give the others a trial. There is Salsafy, for example. How many of my readers have tried this? Some may have done so once, and not liked it; but if it is not enjoyed one way, why not try another method of preparing it? Here are two simple ways of dealing with it; there are several others:

### BOILED SALSAFY.

Wash the roots and scrape them lightly; then either leave them whole or cut them into pieces two or three inches long, and steep them in water with a little lemon until they are wanted. Cook them in boiling water, duly salted, and keep them boiling quickly until they are tender, which will take about an hour. When done, drain them, and arrange them on toast on a hot dish, pouring over them good melted butter or white sauce.

### FRIED SALSAFY.

Boil the Salsafy as directed in the previous paragraph, and drain it in a cloth. Then dip the pieces into a batter made of, say, six tablespoonfuls of flour, a small pinch of salt, and a tablespoonful of margarine (or butter, if preferred), all of which should be mixed together with enough water to make a batter; then add two eggs, well beaten, and stir gently. Take the Salsafy out of the batter, and fry it in dripping or fat. When the pieces are a delicate brown colour, take them out, and serve on a dish garnished with Parsley. When frying, it will be well to use a skewer to prevent the pieces from sticking together.

### A TABLE DECORATION.

What a good thing it is that during the winter months we have the Perpetual-flowering Carnations available for table decoration. With their vivid colouring, sweet perfume, and tall, slender stems—which make them adaptable to almost any kind of vase—they are truly delightful and charming flowers. The most suitable receptacles are, I think, slender, trumpet-shaped vases. For scarlet, crimson, or pink blossoms, use silver or plain glass; for white, mauve, or yellow, use ruby, lemon-coloured, or pale green vases. For a scheme in pink, use as a centre a tall vase of clear glass, or silver. Arrange in this a few flowers of Enchantress Supreme (pale salmon-pink), Mary Allwood (cherry salmon), Nora West (silvery salmon-pink), or Salmon Enchantress (deep salmon-pink). Add a few sprays of Maidenhair Fern, and some long trails of Smilax or Asparagus plumosus. Around this centre vase set smaller vases filled in the same way, and round them twine the trails from the centre. Between the vases some more foliage can be laid. Carry other trails to the corners of the table, finishing each with a light spray of Carnations and Ferns.

LADYBIRD.

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During a spell of dry weather in April or May, a week before the date of hatching, the eggs should be sprinkled with tepid water every morning immediately before the hens return to their nest, after being off the allotted quarter of an hour for food and water. Early in the year twelve eggs are sufficient for a hen to cover properly; later, when the weather is warmer, fourteen is not too many. A common mistake is that of putting the eggs under the hen the moment she shows signs of broodiness. All hens do not take to the eggs at once—some will sit on them two days, when, through no apparent cause, they will leave the nest, and eggs so treated are generally useless. The correct method is to set the hen for three days on false eggs before committing good eggs to her charge. The hens should be taken off regularly each day for food. If this detail is attended to irregularly the hens, after a stated time, become restless, and often are found standing up off the eggs waiting to be released. In this way, if nothing worse happens, the outer eggs become unduly cold, making the hatching irregular, and may spoil the lot. As each hen is lifted from her nest she should be tethered to a stick thrust in the ground, a loop passing round one leg. Some such method as this must be practised where a number of hens are sitting together. Some person may say, What difference does it make which nest a hen returns to? All hens are not of the same body temperature, and as eggs require regularity of temperature it will be seen how important it is that each hen has her own nest continuously. Maize is the best food for sitting hens, as it provides the most warmth from food. Clean drinking water, too, is important.

### BEANS FOR CATTLE.

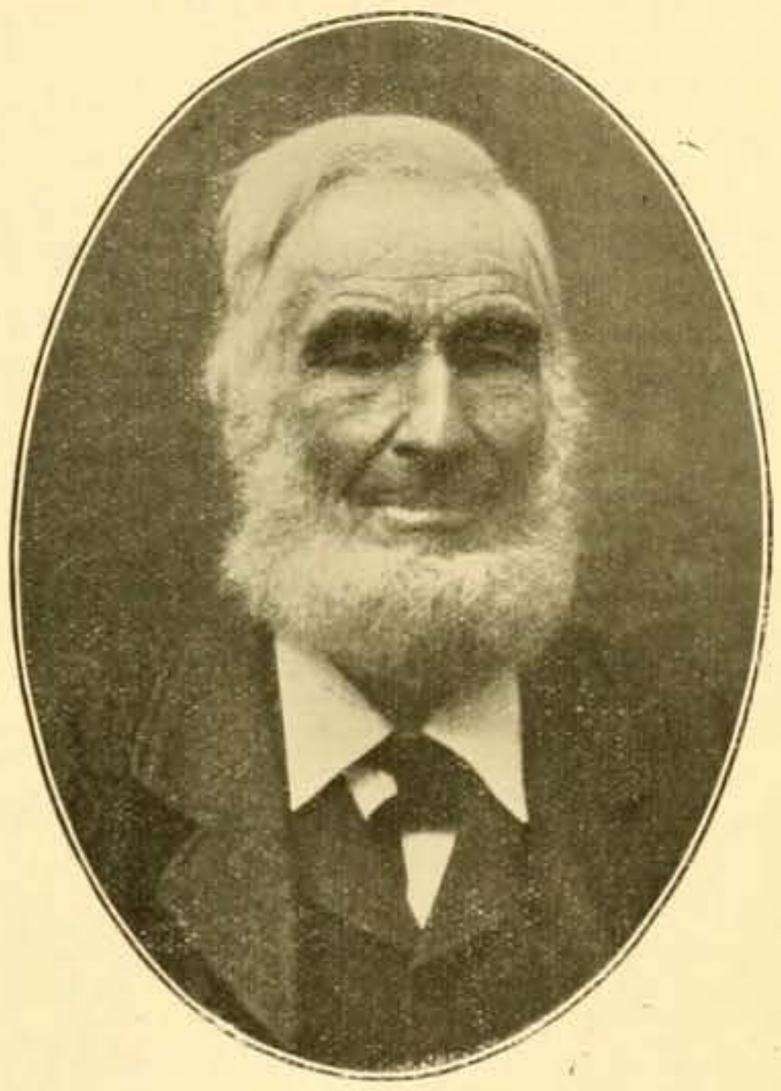
The common Horse Bean (Faba vulgaris), when split, is excellent for horses in hard work, fed with Oats and chaff. Bean meal is capital for fattening stock, as it is rich in nitrogenous as well as starchy foods. For cows in milk a little with the cake rations adds richness to the milk. For lambs fattening after they are three months old split Beans give a great fillip to other foods for putting on flesh. The best Beans are grown on heavy soil, say following a Wheat crop, and, if not wet, land should be sown in October, and the crop is then ready for harvesting sooner than the spring-sown crop, which is known as the Spring, or Lick Bean. The winter Bean is smaller than the spring variety. If the soil is light in character the winter variety should be sown. The yield per acre is uncertain; five quarters is good; adverse weather—drought especially—may reduce the amount to six sacks per acre. Good Beans should give 64 lb. per bushel. 2½ bushels per acre is required for seed. The land should be deeply ploughed in the autumn and well cultivated in the spring for the summer variety. There are many methods of sowing Beans. Broadcasting is easy, but prevents hoeing afterwards. Drilling the seed deeply 18 inches wide is the quicker method. Dibbling the Beans two in a hole is also a good plan. *E. Molyneux.*

### SPRING WHEATS.

The Royal Agricultural Society of England, on the recommendation of the War Emergency Committee appointed in December last, has issued a leaflet prepared by the Botanist of the Society—Professor R. H. Biffen, F.R.S.—giving advice to farmers in connection with the sowing of spring Wheats. The society states that the question is one of great importance in view of the country's requirements in the matter of food supply, and hopes that advantage will be widely taken of the information which has been prepared to assist agriculturists in maintaining the maximum growth of Wheat. Copies of the leaflet can be had on application to the Secretary, Royal Agricultural Society of England, 16, Bedford Square, London, W.C

# Obituary.

**CHARLES ROSS.**—It is with regret that we announce the death of the veteran gardener, Mr. Chas. Ross, whose work in raising new fruits, principally Apples, has obtained for him wide fame. He died at Westgate-on-Sea on the 4th inst., aged 92 years. Mr. Ross was for many years gardener at Welford Park, Berkshire. He was born on the Dalmeny Estate, Midlothian, where his father was head gardener to the then Earl of Rosebery. He was employed in early youth at Messrs. Dickson and Sons' nursery, Edinburgh, and in several private gardens, notably that of Dalkeith. His first position as head gardener was at Fairlawn, Tonbridge, Kent, where he remained for six years. In 1860 he went to Welford Park, where he remained until 1908, when he retired. Deceased attained wide fame chiefly in connection with the raising of new Apples. It was about 1886 that his famous cross between Cox's Orange Pippin and Peasgood's Nonesuch was effected, and from that cross have been obtained several very fine varieties, including Charles Ross, a beautiful Apple, which worthily perpetuates the raiser's



THE LATE CHARLES ROSS, V.M.H.

name. Its original name was Thomas Andrew Knight, under which title it received an Award of Merit from the R.H.S. Some years after the name had been changed to Charles Ross it obtained a First-class Certificate. Immediately before the granting of the latter award, the variety received 1st prize for flavour in a class for dessert Apples at the R.H.S. Fruit Show. From the same cross came The Houblon, Rival, and Renown—three superb Apples. Other excellent Apples raised by Mr. Ross are Paroquet, famed for its beautiful colour; Hector Macdonald, a seedling from Lane's Prince Albert; Encore, from Warner's King and Old Northern Greening; Excelsior, from Peasgood's Nonesuch and Duke of Devonshire, a fine, roundish Apple, with a small curl at the stem; and many others not so well known. Altogether Mr. Ross obtained for his seedlings three First-class Certificates and ten Awards of Merit.

**ALFRED HEMSLEY.**—We regret to record the death from cancer in the throat of Alfred Hemsley, which occurred at his residence, Wisteria Road, Lewisham, on the 30th ult. He was born on January 7, 1851, so that he had completed his 66th year. He commenced his gardening career in a general market garden nursery at Hassocks, Sussex, where his father was manager. He passed through the various departments, and became well grounded in practical knowledge and specially in the forcing of Grapes, Peaches, and Cucumbers. He entered the R.H.S. Gardens at Chiswick in 1878, and was soon promoted to the position of foreman plant grower, and his skill as a grower and his taste in displaying his plants, both in the conservatories and at the shows, was generally acknowledged. He left Chiswick in 1882, and after a short engagement at Carlisle, entered the service of Mr. H. B. May, Edmonton, with whom he remained until 1899. His success there as a Fern grower was well known in the trade. Mr. Hemsley wrote articles for the Horticultural Press for many years, and from 1903 he devoted himself entirely to the literary side of his profession. Besides contributing to English journals, including the *Gardeners' Chronicle*, he wrote for the *American Florist and Florists' Exchange*, and was author of the *Book of Fern Culture*, of John Lane's series of "Handbooks," and joint author with Mr. John Fraser of an edition of *Johnson's Gardeners' Dictionary*, which has been published only a few days. About 1910 his health failed, and he accomplished little work after that. He married in 1883, and leaves a widow, three daughters, and two sons, the younger of whom is a second lieutenant in the 1/13 London Regiment. Mr. Hemsley was an enthusiastic cultivator of Carnations, and his familiarity with the various branches of market gardening was exceptional.

**RICHARD J. DONAVAN.**—*The American Florist* announces the death of Mr. Richard J. Donavan, a florist of Chicago, which occurred on January 3 last. Mr. Donavan was born in Cork, Ireland, in 1848, and was employed for a time in London nurseries. He settled in the United States in 1871, at Philadelphia, and later moved to Chicago, where he was first employed in the Rosehill cemetery. In 1879 he started a commercial establishment on Ravenswood Avenue, where he built up a prosperous business.

**H. WITTE.**—M. H. Witte, whose death is announced in the Dutch Press, was born in 1829. He became curator of the Botanical Garden at Rotterdam, and was transferred in 1854 to Leiden Botanical Gardens, where he remained till his retirement in 1898. He was succeeded at Leiden by his son, M. E. T. H. Witte, who is still in office there. Deceased, who died on January 9 ult., in his 88th year, was a corresponding member of several horticultural bodies, including the Royal Horticultural Society (London). He played a prominent part in the creation of many Dutch horticultural associations, and although he was deaf and nearly blind in his later years, he continued a contributor to the horticultural Press until a few days before his death.

**DR. N. H. J. MILLER.**—Dr. Miller, whose death took place on January 12 at Harpenden, had worked at Rothamsted for 30 years. One of his main investigations, described in the course of a sympathetic obituary notice by Dr. E. J. Russell, consisted in demonstrating, by analytical measurements of the amounts of ammonia in rain, the falseness of Liebig's assertion that plants derive their nitrogen from the ammonia brought down in rain. Dr. Miller also made important contributions to our knowledge of the quantity of nitrogen lost to the soil in drainage water, showing that land loses nitrogen in the form of nitrates at the rate of from 35-40 lb. per annum.

**FRANK SOMERFORD.**—We learn with regret that Mr. Frank Somerford died on the 26th ult. at Bromsgrove Cottage Hospital. Mr. Somerford was a native of Kent, and he started his gardening career in a nursery at Deal. Afterwards he was appointed foreman at Charlton House, Kent. Later, for twelve years, he held the post of gardener to the late Mr. Battie Wrightson, Cusworth Hall, Doncaster, and from 1897 to 1904 was gardener to the Rt. Hon. the Earl of Shrewsbury and Talbot at Ingestre Hall, Stafford. In recent years he was engaged in business on his own account.

**MONSIEUR E. T. TOURET.**—Monsieur Eugène Félix Touret, the well-known French landscape gardener, died at Paris on January 29 after a long illness. M. Touret's son Eugène, Chevalier of the Legion of Honour, who follows the same profession as his father, was for some time a student of the R.H.S. Gardens, Wisley.

Carnations. During spring, summer and autumn Countess of Wilton vies with the sweetest of all Carnations, although, of course, in the dull winter days most flowers lose much of this sweet quality.

The plant is very quick in growth, and it is known as a big producer of flowers. While this may not be seen in every market nursery for some years (as the "man in the street" has yet to be educated up to the best colours), this variety is sure to appeal to those with artistic tastes. Countess of Wilton was the first Carnation of art colour to receive the award of merit from the Perpetual-Flowering Carnation Society, when it was exhibited at the Carnation show in December last.

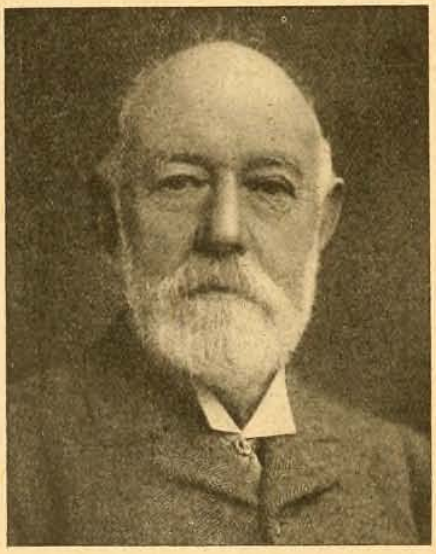
## OBITUARY

### CAPTAIN CHRISTY.

THE National Rose Society has had a loss among its members of one of its oldest rosarians, Captain Christy. I had known him for some years prior to the foundation of the National Rose Society. He was in the early sixties an enthusiastic grower and exhibitor and a keen judge, while personally he was a most courteous gentleman and a lovable man. He was an early exhibitor at the Reigate Rose Society's shows, fighting keenly for the trophy against his friend Mr. J. D. Pawle, from whom on one occasion he wrested it. I cannot recollect whether he held it for good, but I remember it was a most difficult task which we two judges had to fulfil. The stands differed in one or two points only, and I remember as a young judge, and both exhibitors being my friends, what a responsible position I was placed in. I learnt a lesson from the defeated exhibitor, Mr. J. D. Pawle, of how to take a defeat.

In that or the succeeding year, at Lyons, Lacharme had a very fine Rose for which a name was wanted. Captain Christy had recently been a visitor at Lacharme's nursery, and I suggested the Rose should be named after him. It has lasted since the early seventies until now—forty years. Captain Christy was one of the founders of the National Rose Society, being present at the meeting on the Adelphi Terrace, and was selected as one of the first committee, of whom only about seven remain. His friend, Mr. Scott of Bond Street, served afterwards as treasurer of the society for some years. Until last year "the Captain," as he was affectionately called by his fellow-rosarians, never failed to attend the National Rose Society's shows, and I understand he retained his love for the national flower until his death.

GEORGE PAUL.



THE LATE CAPTAIN CHRISTY.

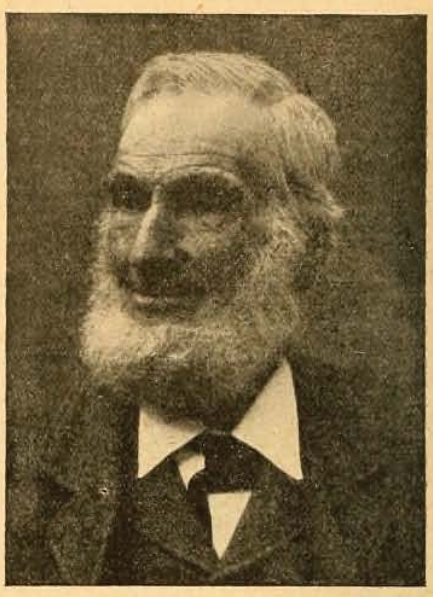
### ALFRED HEMSLEY.

WE learn with regret of the death, from cancer in the throat, of Alfred Hemsley, which occurred at his residence, Lewisham, on the 30th ult., in his sixty-sixth year. Mr. Hemsley commenced his gardening career in a general market garden nursery at Hassocks, Sussex. In 1878 he entered the Royal Horticultural Society's gardens at Chiswick. Leaving Chiswick in 1882, and after a short engagement at Carlisle, he entered the service of Mr. H. B. May, Edmonton, with whom he remained until 1899. His success there as a Fern-grower was well known in the trade. Mr. Hemsley wrote articles for the horticultural Press for many years, and from 1903 he devoted himself entirely to the literary side of his profession. He was author of the "Book of Fern Culture" and joint author with Mr. John Fraser of an edition of "Johnson's Gardeners' Dictionary," which has been published only a few days.

### CHARLES ROSS, V.M.H.

CHARLES ROSS, the veteran gardener and distinguished raiser of new Apples and other fruits, passed away on the 4th inst. at Westgate-on-Sea, at the advanced age of ninety-two years. By his death we lose one of the most striking figures in the gardening fraternity. This venerable and highly esteemed gardener devoted nearly one-half of his long years to the work of intercrossing hardy fruits, and succeeded in producing superior varieties of dessert Apples. His greatest success was about 1886 with the Peasgood's Nonsuch and Cox's Orange Pippin cross, two Apples of widely dissimilar character, but from which came the variety Charles Ross, which perpetuates the memory of the departed veteran better, perhaps, than any other variety of his raising. The same cross also gave us the varieties The Houblon, Rival and Renown. An appreciation of his valuable work appeared in THE GARDEN, November 28, 1908, and at that time it had fallen to Mr. Ross to obtain from the Royal Horticultural Society no fewer than three first-class certificates and ten awards of merit for Apples. Besides the four Apples named, Welford Park Nonsuch (raised in 1892), Bella, Armorel, Atalanta, Mrs. Phillimore, Paroquet, Hector Macdonald, Encore, Ruddy, Opal and Excelsior are of his raising.

The Royal Horticultural Society presented Mr. Ross with a Hogg Memorial Medal and the Victoria Medal of Honour in Horticulture as evidence of its appreciation of the work he had done in Apple breeding. Mr. Ross was of Scotch extraction and was born on the Dalmeny Estate, Midlothian, where his father was gardener to the then Earl of Rosebery. As a youth he served several years in good Scotch gardens, including Dalkeith, under the famous McIntosh. Later he took the position as head-gardener at Fairlawn, Kent, where he planted a Wellingtonia gigantea as a memorial of the celebration of Peace after the Crimea War in 1856. In 1860 he removed to Welford Park and was head-gardener there for almost forty-nine years, from which position he retired in October, 1908. From their origin until recently he had not missed the Royal Horticultural Society's fruit shows as an exhibitor or as a judge.



THE LATE CHARLES ROSS, V.M.H.

## ANSWERS TO CORRESPONDENTS

### ROSE GARDEN.

**SULPHATE OF IRON TO IMPROVE THE COLOUR OF ROSES** (*Maida Vale*).—Iron sulphate is likely to be of use only in soils containing much chalk or limestone. In such soils iron is at times deficient, but there is usually quite enough for the requirements of plants. Basic slag should be useful, as there is little doubt that potash is one of the most active substances in producing plant colour, and the lime in the basic slag is capable of setting free the potash locked up in the soil. Any ordinary chemical manures may be used in spring, after the application of the iron sulphate.

### THE GREENHOUSE.

**CAMELLIA BUDS DROPPING** (*Mrs. S.*).—The buds of Camellias may drop from different causes. In the first place, it may be owing to dryness at the roots, especially if in a pot or tub, as though the surface may appear moist, perhaps the interior of the ball of earth is quite dry. Next, if the roots are kept too wet, it would have the same effect. Another probable cause is an excess of atmospheric moisture in the structure it is grown in, for a free circulation of air is very necessary for the welfare of Camellias in general. If the air is too much surcharged with moisture, it is apt to collect in the flower-buds as they are in process of development and cause decay to set in just at the base of the petals.

### TREES AND SHRUBS.

**A BELT OF DOGWOOD** (*A. W. R.*).—The best Dogwood to use for the effect of coloured bark in winter is Cornus alba, but if the ground is wet you would probably do better with coloured-stemmed Willows, such as Salix alba var. vitellina, with yellow bark, and the Cardinal Willow, with red bark. If you wish to have a Dogwood that will produce colour effect in summer as well as in winter, Cornus alba Spathii, with golden leaves, or C. alba sibirica variegata, with silver variegated leaves, should be planted; in both cases the colour of the bark is quite as bright as that of the type. Alders would be rather heavy behind the Cornus, and a Willow, such as Salix elegantissima or S. babylonica, would be more elegant and pleasing. The Dogwood can be grown in a little shade.

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William Rush



# FERNS AT THE FERNERY, THORPE ROAD, NORWICH.

IN a pleasant suburb of the City of Norwich is to be found one of the most interesting gardens in East Anglia. It belongs to one of the best-known citizens, and is in charge of a gardener who last year enjoyed the distinction of filling the presidential chair of the East Anglian Horticultural Club. The name of the residence of Mr. F. P. Hinde is The Fernery, and it is situated on high ground in Thorpe Road. There is nothing in the appearance of the house, however, to indicate that behind it lies a garden with many attractive features, and one of very special interest. Before I paid a visit in the early days of June to The Fernery, I knew that Mr. Hinde was exceedingly fond of his garden, and that his gardener, Mr. William Rush, was a high authority on the cultivation of Ferns; but I was quite unprepared for the evidences of originality and skill which claimed my attention directly after my arrival. Unfortunately, Mr. Hinde had started for a month's stay at the seaside, but, in his absence, he left Mr. Rush a free hand, and very possible facility was afforded to me, including the most kindly hospitality. The entrance is attractive, but apart from the Cobæa scandens which adorns the roof, and an excellent combination of Ferns and Fuchsias, with Schizanthus retusus on one of the shelves, the front conservatory does not call for notice. It was when we had passed through the hall into the back conservatory that I began to understand why The Fernery had won a reputation in horticultural circles, and realised at once the singular appropriateness of its name.

THE LAWN AND ORNAMENTAL WATER AT THE FERNERY, NORWICH.

The conservatory proper has a tenant whose claims to recognition are indisputable. Aged twenty-two, the Fuchsia covers a space of fifteen feet by nine, and, as Mr. Rush made haste to tell me, has a flowering season extending to nearly six months.

"And the variety?" I asked.

"Quite an unknown one in these days, Thomas King. But the best proof I could give you of its floriferous character, is that one day in the height of the flowering season we counted the dead blooms on the floor. They reached a total of three hundred and forty."

### THE LURE OF THE MIRRORS.

As I looked with renewed admiration at this valuable specimen, Mr. Rush pointed out that it divided the honours with a plant of Lapageria rosea, which for sixteen years had also flowered continuously for six months. We next made our way into one of the most fascinating constructions it is possible to conceive—I use the word construction advisedly. For the sake of convenience it is called the Side Conservatory; it deserves to be known as the "Place of Delightful Delusions." By the adroit use of mirrors, a quite small building is made to convey the impression that it is one of imposing dimensions. There seem to be Ferns to the right, Ferns to the left, Ferns in the centre, and even the floor itself is a carpet of Ferns and Mosses, growing up between rough pieces of flag stones. Apparently, Ferns also extended a long distance in each direction. But most of these are imaginary. The little Fernery, which renders the delusions possible, is a gem of its kind, the plants having been embedded amongst rockwork with consummate dexterity. When I had seen the views reflected in several of the mirrors, I inquired when they were placed in position.

"The place itself," said Mr. Rush, "was erected thirty-two years ago, but the glasses were not put in until fourteen years ago, or nine after I took charge of the garden. The primary purpose, as you have now discovered, is to secure, no matter which way you look, a vista of Ferns—Ferns everywhere. Our great difficulty was to secure angles, and the glasses were moved at least fifty times before we succeeded in fitting them. Building round looking-glasses needs patience. Then, in constructing the rockwork, clinkers, coke, cement, and ashes were used, in order that the walls might not dry white."

### THE PREVALENCE OF GREEN.

"I should like to know the length and width?"

"The length is thirty-two feet, the width nine

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feet. The seeming extent is boundless; there is one vista a hundred feet long. You will observe that the Ferns are as close to the glass as possible, and that everything in the building is green, though in one of the vistas is seen the scarlet of some of the flowers in the adjoining conservatory, and one of the climbers on the roof, grown in the rockwork, is a Passion-flower."

"I conclude that to keep it in such a perfect condition involves incessant attention."

"Yes; though care rather than skill. The constant and judicious use of soft water is essential. The building is never allowed to become dry; and at this period of the year it is watered daily. We even syringe the flagstone and moss slightly when syringing the other part of the building. Ventilation is also a matter of urgency. We ventilate at the backs of the glasses."

### THE PRINCIPAL VARIETIES.

"Without giving a long list of varieties, it would be interesting to mention the names of some which best repay cultivation in the circumstances."

"Among Adiantums, Capillus-veneris; Pteris in variety, especially cretica, albo-lineata, and Adiantum concinnum; Asparagus Sprengeri, Nephrolepis grandiceps, and Lastreas in variety. But though each species has its charm, and is tenderly cherished so that its vitality may be developed, and the beauty of its fronds increased, we do not lay particular stress on particular kinds. The object is to have a feast of green for the eye to rest upon."

"And that has been obtained in a manner with merits the widest publicity, because there are people who, though not able to possess a large garden, might, to some extent, emulate Mr. Hinde's enterprise, and your ingenuity, when they learn how the work is done."

"Now you must see the other Ferneries, and first the outside Fernery, which is devoted to the hardy species. We can discuss the garden itself as we come back. Partly shaded by the two fine specimens of Copper Beech, this Fernery was built with clinker stones, and old retorts from the gasworks, and planted with the varieties which flourish in the open, chiefly British Ferns.

### USEFUL HARDY FERNS.

For instance, Lastrea erythrosora and L. variegata; Asplenium adiantum-nigrum in variety, especially crispum, albo-lineata, and cristatum; Asplenium bulbiferum; Platyloma rotundifolia; Blechnum occidentalis; Onychium japonicum, Onoclea sensibilis, Polystichum angulare; Doodia aspera, Phlebodiums, Pteridiums, and Lastreas in variety. But though each species has its charm, and is tenderly cherished so that its vitality may be developed, and the beauty of its fronds increased, we do not lay particular stress on particular kinds. The object is to have a feast of green for the eye to rest upon."

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For instance, Lastrea erythrosora and L. variegata; Asplenium adiantum-nigrum variety; Athyrium filix-fœmina—the Lady Fern; Woodsia obtusa; Cystopteris fragilis—the Bladder Fern—and C. bulbifera; Polystichum angulare—the Soft Shield Fern; and Scolopendrium crispum, with others. When the Ferns are making their young fronds, some of the kinds are lovely."

"Does the care of the outdoor Fernery give much trouble?"

"No, there are very little indeed. Here, too, the great point is to keep them moist, but the hose must never be used when the sun is shining. The remaining Ferns are grown in the houses at the far end of the garden, and you would doubtless like to see some of these before we change the subject."

"Here" is the cool Fernery, in which, among others, planted out in the rockwork, are Adiantum Marsesii, Woodwardias, Lygodium japonica, Platyloma rotundifolia, Osmunda palustris, and a quantity of Scolopendriums. The collection embraces two fine specimens of Stag's-horn. We also make an effect with hanging baskets of Adiantum cuneatum, Asparagus Sprengeri, Nephrolepis grandiceps, and Fern balls. Enough heat is used in the house to keep the frost out. By way of contrast, the warm Fernery, which we are now entering, contains some of the varieties which would not live except in a heated atmosphere. It also contains a number of seedlings of my own, specially those of the Gold Fern—Gymnogramma elegantissima, some crested, and others plain fronds. On the roof there are Allamandas Williamsii and Schottii, and Cissus discolor, and Rex Begonias are hanging on the walls. Also we grow here Crotons, Dracænas, and Selaginellas in variety, such as S. apoda, S. cæsia, S. Krausiana aurea, S. Ameliana, and S. Martensii variegata.

THE SIDE CONSERVATORY AT THE FERNERY.
By a clever arrangement of mirrors an impression is created that the place is of considerable size.

"With regard to the Gold Fern, a piece of one which seeded itself on shelves, has been growing about eight years. Varieties of Nephrolepis are very much in evidence, and include N. Marshallii, Whitmanii, Amerpohlii, Lodeioides, Forbesii, Duffii, and pluma; Davallia heterophylla and D. Bullata; Maidenhair in variety; also a fine plant of Pteris argyrea.

"The flowering house contains a large collection of Pelargoniums, which flower freely in small pots, a system of growing I find very convenient. One of the seven houses is a Vinery, in which we grow Black Hamburgh, Alicante, and White Queen Grapes."

### A HOUSE OF FUCHSIAS.

"Another appears to be devoted to Fuchsias, with Camellias on the back wall?"

"Chiefly one variety of Fuchsia, Red Rundle, which is my favourite, and particularly good for bedding out. There is also Castile Improved, with several other small-flowering varieties, such as Abundance, Miss Ida Roach, Ben Pearson, A. M. Pearson, Duke of Fife, and Curio. As to plants of special interest, you may care to make a note of Tydæa amabilis, which is growing on the wall in the small stove house, with rich scarlet blooms and velvet foliage of dark green and grey. It is grown in peat, and hangs down the wall, which eventually we hope it may cover. Then there is Abutilon Royal Scarlet and a piece of Golden Fleece, which has been in flower for twenty years without a break."

"The plant of Euphorbia splendens close by must also be a considerable age?"

"Yes, it was repotted twice in two years, and the original plant must be very old. In the same house is the Brugmansia now in flower. In July we get as many as sixty flowers at once."

"Bedding," I said, as we strolled up the garden, "is not, I judge, by any means a feature?"

"No; there are very few formal beds, the two main objects being to grow the best Ferns we can, and a sufficient number of flowers to keep the garden bright. Then there are various contrivances to render it picturesque, such as the piece of an old ruin covered with Ivy, just outside the range of houses. Roses are grown in various forms, especially varieties on chains made out of old machine chains put together. The varieties on the chains are mainly Crimson Rambler, Gloire de Dijon, Dorothy Perkins, William Allen Richardson, Hiawatha, Carmine Pillar, Amy Vibert, and Inermus, an old variety which gives an abundance of flower. A little distance further on are Honeysuckle growing respectively up an Acacia tree and a Thorn, and to the left of the Roses on chains is the rockery. The stones out of which it is made were originally clothed with Ivy, and it occurred to us some time ago that they might be turned to better account. Hedera Cloth of Gold is still retained, but the other varieties have been ousted for such plants as Saxifrage in variety, Campanulas, and Helianthemum Bronze Queen."

"What is the name of the Rose which makes such a contrast of colour with the foliage of the Laurels a little further on?"

"Meg Merrilies, one of the Penzance Briers. The fountain nearer the house, which contains fish, is planted with Water Lilies, Aponegetons, and Arum Lilies; while its banks are clothed with Sedums, Silenes, Dianthus in variety, Veronica Bedwelli, Viola cornuta, Cerastiums, Mimulus, Thymus, and Androsaces. On the house itself is scented Verbena, Roses, and Jasminum revolutum, a variety with fine yellow flowers; and below the terrace are tiers of beds planted with annuals. Under the drawing-room window is a border planted with Iresines, Abutilon Thompsonii, and Centaureas plumosa, with Viola Royal Sovereign, the variety which we use everywhere as an edging. But after all, we think most of our Ferns, and they, of course, occupy a great deal of time and thought."

### THE CULTURE OF ADIANTUMS.

"Any hints on culture from you would therefore be very acceptable."

"Adiantums make much better plants when they are raised from spores, than by divisions of the old plants. As soon as the spores are ready for removal, the fronds should be taken off and wrapped up in a sheet of paper in a warm, dry position. In a few days the spores will fall out of their cases in the form of a fine, minute powder of various colours, according to the varieties. Some are yellow, others brown, and those from Nephrodiums are quite black."

"When is the best time to sow them?"

"With heat, as soon as they are ripe. They should be put in a clean pan about nine inches across, which should be half filled with crocks, and then, within an inch of the top, with well-decayed peat. This should be pressed down until it is firm; then a small portion of peat, sufficient to cover the surface, should be rubbed through a fine sieve. When a little powdered charcoal or brickdust has been added, a good soaking of boiling water to kill germs of fungi should be given. The spores should then be carefully put into a piece of muslin, and lightly dusted over the surface of the pan. If sown too thickly, they will damp off as soon as they germinate. A piece of glass should be put on the top of the pan, and it should be placed in a propagating frame, where it can have sixty or seventy degrees of heat. The pan should stand in a saucer, into which every few days a little warm water should be poured. On no account should watering be done from the top. In a few weeks the prothallus will appear, and great care must be exercised, as the least dryness or excess of moisture is fatal. If a white fungoid growth appears on the prothallus, it must be removed immediately, or in a few hours it spreads all over the surface. If all goes on well tiny fronds will push up, and this is the stage for the prothallus to be pricked out into other pans, in pieces the size of a Pea. They must be kept warm and moist till they are an inch high,

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when they can be divided and grown on in the usual way."

**SOIL FOR GREENHOUSE VARIETIES.**

"As to general culture," continued Mr. Rush, "overpotting with Ferns is a very common mistake. Only the strong, coarser-growing varieties are benefited by more frequent potting. Ferns growing in a warm greenhouse should be repotted wherever they require it, if it is desired to grow them to a large size. The best soil for these is rich fibrous loam, mixed with well-decayed leaf-mould, sharp coarse sand, broken-up bricks, and small cinders. The soil should be used in as rough a state as possible, and should never be sifted, except for small pots, care being taken to eliminate worms or insects."

"What about watering?"

"There is no feature of plant culture which seems to worry amateurs so much as the question of watering. And yet the answer is very simple. Water a Fern whenever it obviously requires water, whether it be twice a day or only twice a week. You cannot make a hard and fast rule about watering, but dryness is especially fatal to Ferns. They will, as a rule, thrive in a moist atmosphere, and my experience is that it is an advantage to grow them on shelves or benches covered with rough ashes. I am not an advocate of much syringing, except in early spring, when the fronds are young. Then it is sometimes beneficial, provided that chilled, soft water is used; never hard water, as it contains lime in solution, which discolours the foliage. With respect to shading, I use blinds of pale green, and I find it best in the case of small Ferns to have a permanent shade on during the summer months."

**THE CAUSE OF MR. RUSH'S SUCCESSES.**

"In conclusion, have you any objection to tell me whether you attribute your successes to any special cause?"

"I owe a very great deal to my connection with the East Anglian Horticultural Club, which I joined twenty-three years ago. It is one of the strongest in England, and the information to be gathered at the monthly meetings, and from the lectures by experts, not to mention the pleasure to be derived from visiting some of the most famous gardens, is of immense value. When I was a boy, such advantages as these were not to be had, and in later years I have keenly appreciated them." ALFRED WILCOX.

NEXT week the subject will be: An Italian Garden in London—Sir William Lever's beautiful place on Hampstead Heath.

## NOTES ON VEGETABLES.

THE cultivator's work is by no means finished when he has sown the seeds or put out the young plants. It is necessary to keep a watchful eye on the plants, and so note their general progress. The season of growth is not a long one, and every effort should be made to get the biggest and most satisfactory crops during the time.

It may be that the soil is of poor quality, and has not been enriched by applications of manures early in the year; it may have been badly prepared. In any case, the cultivator must try to put matters right now by judicious feeding, top-dressing, thinning-out, hoeing, and watering.

Cauliflowers, Cabbages, etc., are gross feeders, and soon exhaust the little goodness contained in a comparatively poor rooting medium. If the soil is porous, and liquid and organic manures are available, no time should be lost in applying both. The organic manures may be spread on the surface between the rows, and a supply of water be given, following this with several doses of fairly strong liquid manure. The food contained in the top mulch will, in every instance, be washed down to the roots of the plants, in addition to that applied from the watering-can. This will be a decided gain; but to be beneficial generally, the applications should be regular.

**BEANS AND PEAS.**

The Runner Bean, though a tender plant where cold east winds and frosts are concerned, seems to withstand rougher treatment in summer time than Peas or Dwarf Beans, and many amateurs fail to grow the two latter crops satisfactorily while succeeding with the Runners.

In a naturally dry soil, in a dry period, Peas suffer considerably, and the anxious grower puts confidence in the watering-can or hose-pipe. Now, a fair amount of water will do good, constant soakings will do harm. They chill the roots, stop their activity, and cause mildew to spread on the surface.

If a heavy shower comes, take advantage of it, and apply a mulch at once; half-rotted manure is best, but leaf-soil, or even grass from the lawn, would answer the purpose. In the absence of rain, give clear water, and follow it with liquid manure, and immediately apply the surface mulch. Having once got the roots in a moist soil, maintain that condition. To do so will only entail one watering a week; frequent light showers would be quite sufficient. This treatment results in the spread of surface roots, so that if the soil around them is allowed to get very dry, they perish, and harm is done; but by just keeping them in a healthy state, the haulm grows freely and the pods fill with Peas splendidly—and all this from a minimum amount of labour and expense. The same treatment should be meted out to both Runner and Dwarf Beans.

**CELERY.**

The inexperienced cultivator is always most anxious to earth-up his Celery plants. They look larger when soil has been put to them, but very often they are considerably retarded by its presence. Of course, the only need for soil being placed to the plants is to cause blanching, and, in the case of the main crop, to protect them from severe frosts. If put to the plants eight weeks prior to their being required for use, it will be quite soon enough.

The most important work in the meantime is to keep the plants free from weeds, to remove suckers and split stalks, and to apply clear water and liquid manure as required to induce a steady, strong growth. For exhibition it is a good plan to place a mixture of sand and sifted coal ashes next to the sticks when each earthing-up is done. The gritty mixture need not be in any great quantity, but it keeps slugs away, and the leaf-stalks are turned out clean and well blanched. G. G.

## WASPS AND THE GOOSEBERRY SAW-FLY.

THE old saying, "Give a dog a bad name and hang him," is particularly appropriate to the wasp family. Every horticulturist wages war against the fertile females that live over the winter to carry on their species another year.

**A FLOWER BED IN ALEXANDRA PARK, HASTINGS.**

For the photograph of this charming example of summer bedding we are indebted to Mr. J. P. Baldwin, Thornton Heath.

But they are not wholly detrimental to the grower. This spring I have noticed these insects among the early Gooseberries, searching the leaves over for the young larvæ of the sawflies, and carrying them off to an old thatched roof near by. They are back again in a few moments to the same tree, searching for the perforated leaf which has the young larvæ beneath. I may mention that this sawfly attaches its eggs beneath the leaf by means of some glutinous substance.

**THE SAGACIOUS WASP.**

The wasps did not take any of the large larvæ, which proved to me they had only just begun making their combs and laying their eggs, and as what young brood there was in the combs was very small, they were sagacious enough to take home very small larvæ to feed them.

The perforated leaf is the first index of this sawfly on the crop. All market-growers are early on the lookout for it at picking time. By passing the thumb beneath they are soon destroyed, and this saves a lot of trouble after.

J. J. KETTLE.

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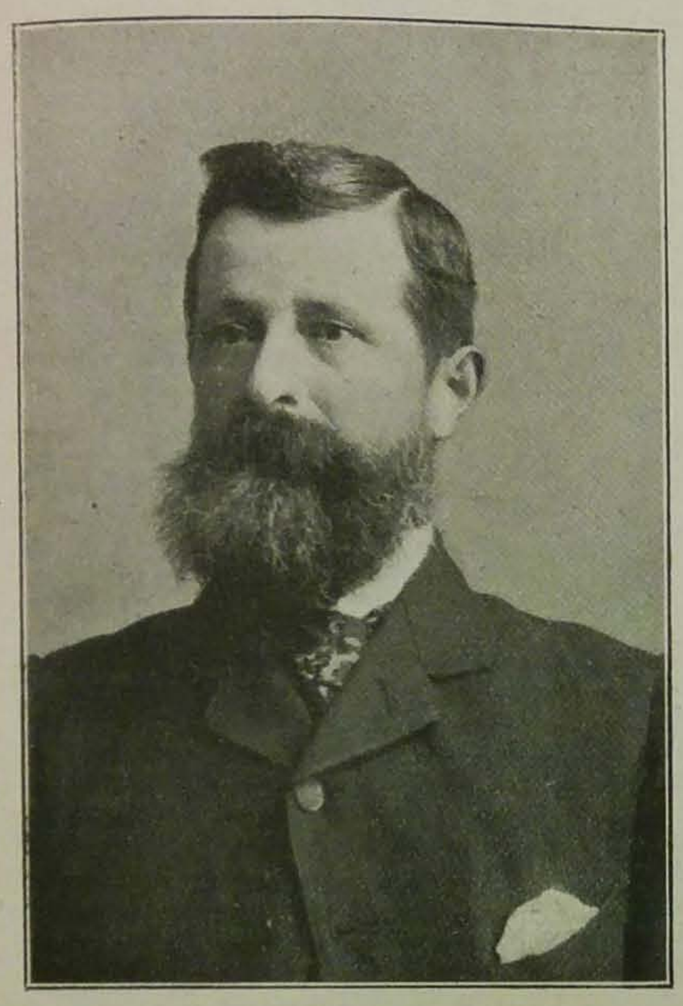
portion of tall Peas and a few dwarfs is satisfactorily explained by Mendel's theory. The produce of this cross is again sown the following season. All the dwarfs, semi-dwarfs, and talls being sown separately, we find in this generation a further splitting up of the types, dwarfs still appearing amongst the tall selections in the proportions of the second generation, but the dwarfs and semi-dwarfs do not further break



MR. F. W. RUSSELL.

away in height, but come true." (This again is in accordance with Mendel's theory, which holds that recessives breed true.) "Therefore we have to grow and select each cross through at least three generations before any fixed and definite type can be secured. Afterwards, the selected seedlings, if any—in many cases they are all useless—are further sown and selected." It will be seen, then, that the raising of a new and improved variety of Pea, and "fixing" it, is not a simple matter, the brief work of a single season. It requires skill and care and labour, and it occupies years. When eventually it is first put on the market, the price may seem high, but it does not represent for the grower the big remuneration generally supposed, especially as it has to bear the cost of many failures. Indeed, Mr. Laxton, successful as he has been in this work, distinctly stated that he had found it "commercially unprofitable."

**Colour Considerations.**

July 5th.—The change of colour which takes place in certain flowers is curious, and makes one wonder what benefit it is to the plants. The flowers of the Honeysuckle, for example, are on the first day white inside and red outside, and on the second day entirely yellow. Lord Avebury suggests that in the early stage they are more conspicuous, and that "insects naturally fly first to the more conspicuous flowers, thus dusting themselves with pollen, and then passing on to the others to deposit some of it on the stigma." As in these cases the pollen and the pistil ripen at different times, the explanation is probable. If so, it follows that for insects blue is less conspicuous than purple, for the purple flowers of the Viper's Bugloss change to blue; less conspicuous also than yellow, for the flowers of Myosotis versicolor are first yellow and then blue; and less conspicuous than red, for the flowers of Pulmonaria officinalis are first red and then blue. This is easy to understand, for blue in the midst of green is certainly more difficult to see at a distance than the other colours mentioned. This may perhaps explain why blue, though a common colour among flowers that open early in the year, becomes very much rarer as the season advances and foliage is more abundant.

H. C. DAVIDSON.

# Famous Gardeners at Home.

## No. 263.—MR. F. W. RUSSELL, AT THE GARDENS, PAXTON PARK, ST. NEOTS.

THE gardens at Paxton Park, the pleasant seat in Huntingdonshire of Lady Esmé Gordon, which, by her courtesy, I visited in May, are somewhat extensive, the pleasure grounds surrounding the large modern mansion and the kitchen gardens combined containing about twelve acres, all of which is turned to the best possible account, every foot of land being made use of, while in each department the most complete order prevails. Lady Esmé Gordon does not spend a great deal of her time at Paxton Park, but the gardens are maintained throughout the year in such a manner that at any period her guests would find them as well cared for as if she were always in residence. Thus, the lawn in front of the mansion was in a perfect condition when, under the auspices of Mr. F. W. Russell, the head gardener, I explored the pleasure grounds, while the scheme of bedding throughout was obviously planned and executed with equal skill and consistency.

The approach from the main road to the house is rendered especially pleasing by the Portugal Laurels along the drive, and the Box (which has to be clipped every year in order to keep it within bounds), together with a nice collection of Hollies, flowering shrubs and Conifers. The conservatory, which faces the sunk garden, is an imposing building, and at the time of my visit contained, in addition to the usual Palms in the centre, baskets of Maidenhair Fern and Asparagus Sprengeri. A number of flowering plants on the stages included Azaleas, Hydrangeas, Coleus, Cineraria stellata, and Genistas in quantity, with some Acacias which had just ceased flowering. The walls are clothed with Bignonias and Lapagerias, and in the season the Chrysanthemums make a brave show.

"How many beds are there in the sunk garden?" I inquired, as we went outside.

"Nine. As you see them to-day, the centre bed is filled with Wallflowers (blood-red), edged with Cowslips; the four corner beds with Harbinger Wallflowers, and a line of Dwarf Yellow, edged with Primroses; the four heart-shaped beds have in the centre yellow Wallflowers, a line of Sutton's Eastern Queen, edged with Sutton's Perfection Myosotis; and the two windmill beds, facing the terrace, have Wallflowers (Harbinger) in the centre, and double white Arabis, edged with Myosotis (dwarf blue)."

"When do you sow your Wallflower seed?"

"The third week in May. By sowing thus early, I get good, sturdy plants in October, which stand through the winter. The Myosotis, also, I have just sown for next season."

"What is your combination for summer here?"

"It will probably be mainly scarlet Geraniums, with a line of golden or silver Geraniums, edged with blue Lobelias or Ageratums and Pyrethrums."

**Conifers and Roses.**

"You have a grand Cedar of Lebanon on the lawn."

"Yes, but it has to be supported, to keep the branches up. There is a fine specimen of Cedrus deodara beyond, and an Araucaria. The more notable of the other Conifers are Pinus, Cupressus, and Picea glauca. Chestnuts, Walnuts, and the cut-leaf Beech also add beauty to the scene."

"Then, there are numerous beds scattered about."

"And the Rose garden, which is protected by Yew hedges."

THE CONSERVATORY AND FLOWER GARDENS AT PAXTON PARK.

"It has also the effect of improving the appearance. Are the varieties in your Rose garden grown separately, or do you mix them in the beds?"

"They are of the Hybrid Perpetual and Hybrid Tea sections, and are mixed. I lifted

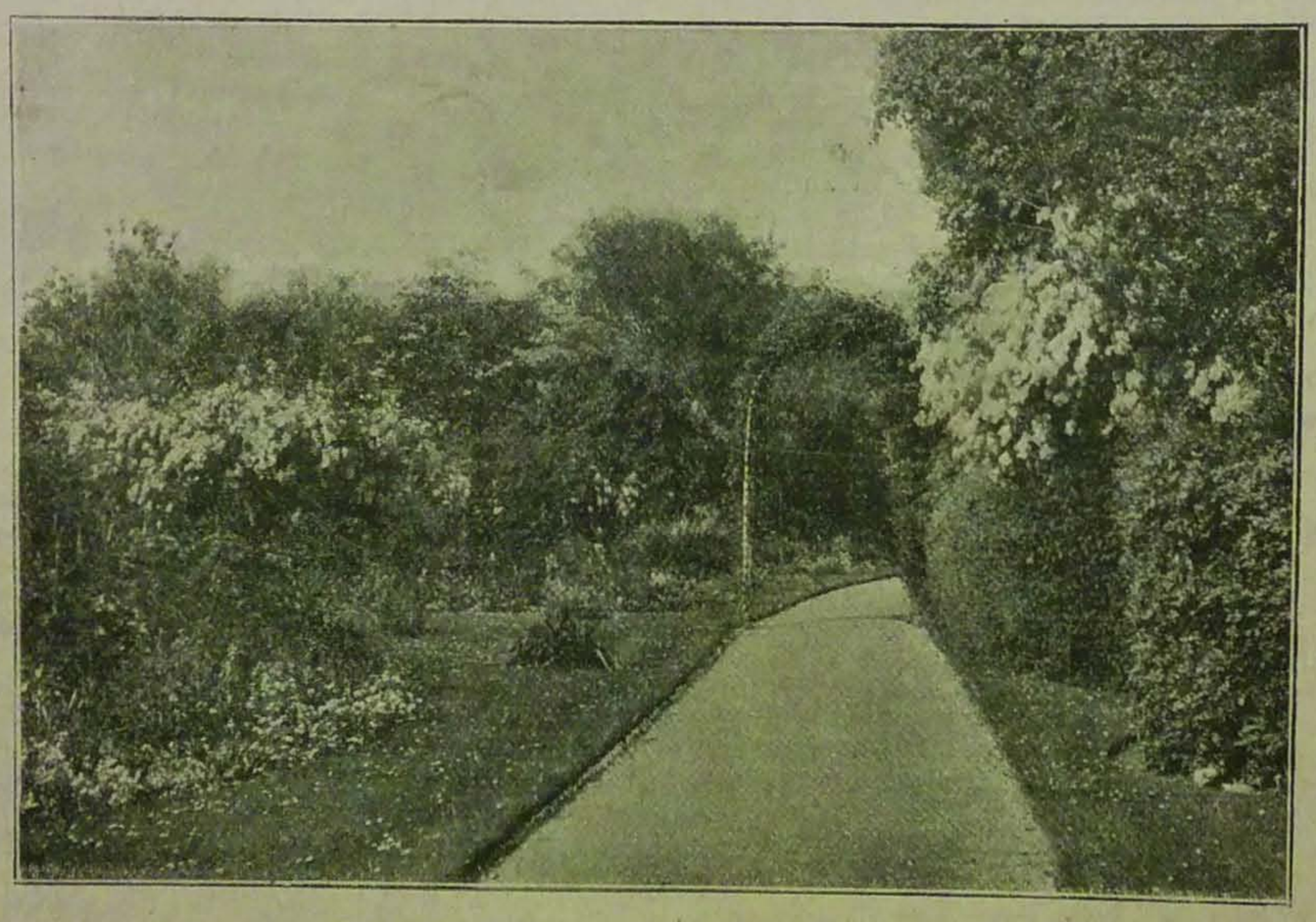
and replanted them two years ago. Favourite varieties are La France, Baroness Rothschild, and Souvenir de la Malmaison.

"Other beds on and near the lawn," continued Mr. Russell, "are filled with Rhododendrons of named varieties; mollis and Ghent Azaleas, which have been forced, used, and planted out again; and double Wallflowers, single yellow and blood-red, round, edged with Polyanthus and Primroses (crossed). In fact, everywhere, as you can see, we make particularly good use of Wallflowers and Myosotis for the bedding, using the varieties I have already mentioned."

**The Arch Walk.**

We next turned our attention to the Arch Walk, which is a charming feature on the south side of the mansion.

"On the arches," said Mr. Russell, "are Honeysuckles and climbing Roses, such as Crimson Rambler and William Allen Richardson. The wall here we call the Wistaria wall, the varieties including not only sinensis and multijuga (with its long, lilac, purple-winged racemes), but sinensis alba. Choisya ternata, Ceanothus, Pernettyas, and Jasminum also flourish on this wall. Underneath, in the



A Walk in Paxton Park Gardens.

border, are Irises in variety, Liliums, Aubrietias (græcus), Pyrethrums, and many other herbaceous plants."

"But you have other herbaceous borders?"

"A great many herbaceous plants are grown between here and the Long Walk leading from the house to the church. The banks, which are a feature in the piece terminating with a double arch of Honeysuckle and Ivy, now full of spring flowers, will later on have Delphiniums, Helianthus, Stocks, and Asters conspicuously; and the Lilacs now in flower behind will give place to Dahlias. As to the walk itself, the herbaceous border was entirely replanted last autumn. Earlier in the year it was full of bulbs, which were edged with Crocus; and the herbaceous plants, which include Pæonies, Phlox, and other varieties already named, will supply us with flowers until November. The early-flowering Chrysanthemums are planted out of doors, and the trees here are a great protection to them in the autumn. The Aquilegias were raised from seed last year, and the Lilacs planted out in the border were previously forced."

"Then, I notice that at intervals there are Polyantha Roses planted on poles?"

"Also Honeysuckle, which flower very early. Among the Roses which do best for this purpose are Lady Gay, Dorothy Perkins, and Gloire de Dijon. Another feature of this walk is the quantity of Berberis, which is as pretty with its red berries as with its yellow flower. I find it better not to clip the Berberis hard, because clipping it destroys the crop of berries."

"The trees behind are chiefly fruit trees, are they not?"

"Pears, such as Pitmaston Duchess, and Apples, like Bramley's Seedling; but there are also a number of Nut trees—Cob Nuts and the frilled and copper Filberts. On one side of the walk there is a Brier hedge. I am obliged to prune the Apples rather severely, to keep them in bounds. If they were standards in an orchard, I should not recommend pruning so severely. I may say that fruit-growing, both in the open and under glass, is a feature here. Some of the fruit outside is grown in the kitchen garden, and a considerable quantity of some of the principal vegetables in a field which has been converted into an extra kitchen garden."

Proceeding to the original kitchen garden first, my attention was attracted by a wall (ninety yards long) covered with Peaches and Nectarines.

"I find," observed Mr. Russell, "that the best varieties of Peaches for early use are Hale's Early, Amsden June, and Waterloo, and I have gathered the last-named late in July. The best Nectarines are Pineapple, Elruge, Rivers' Orange, and Humboldt."

**Advantages of Dwarf Peas.**

"Your early Peas underneath the wall are looking splendid."

"The varieties are Sutton's Harbinger, King of Dwarfs, Little Marvel, and King Edward. The advantage of growing dwarf Peas is that you get crops equal to those obtained from tall varieties, and the flavour of the Peas is quite as good as those grown from three to six feet high. My own opinion is that the tall, staked Pea is a thing of the past. Other Peas occupying borders elsewhere are May Queen, Early Giant, Early Marrowfat, Gradus (of which I have six rows), and Glory of Devon. Our system is to grow the earliest Peas in the walled garden, the second-earlies under the Peach walls, the third in the field, and the latest in the kitchen garden. The other vegetables we might take when we have done the fruit."

"Can you tell me the length and breadth of your great bed of Strawberries?"

"Thirty yards long by twenty wide. Last year I had as many as ten hundredweights from this bed."

"What did you do with them all?"

"When we have supplied the mansion with all that are required, the surplus fruit and vegetables are disposed of locally. Last year I could have sold twenty hundredweights locally if they had been here to sell."

"Can you remember the greatest weight of Strawberries you gathered in one day?"

"One hundred and forty pounds. With regard to the system of growing, I always allow two feet between the rows, and the same distance between the plants. Then I invariably plant some runners every year, and destroy some old plantations. I never keep any on the ground after three years, because if I did the fruit would be too small. A large number of the Strawberries are grown in the field, and were planted out in August of last year, including four rows of Royal Sovereign, which were planted after they were forced. The other varieties are The Laxton, The Leader, Fillbasket (a good cropper), Sir J. Paxton, Viscountess, La France (good flavour and cropper), James Veitch and British Queen. I net the Strawberries four feet high, so that the fruit may be gathered comfortably."

**A Plantation of Bush Fruit.**

"When was the plantation of Currants and Gooseberries made?"

"Three years ago, and I have had to net the whole of them. The Gooseberries are chiefly the Lancashire varieties: Red Currants are Raby Castle and Fay's Prolific, which are larger and more useful than the other kinds; and the Black Currants, Victoria, Lee's Prolific, and Baldwin. In another part of the kitchen garden I have some fine old Currant and Gooseberry trees, and there also Raspberries are grown in the old style from stools. The latter are always netted, and I get a good crop every year. Perhaps the reason is because I never dig them, and only prick in the manure in the spring, after autumn dressing."

"You must have a great quantity of Pears on the different walls?"

"They are grown in various ways on the walls, dessert varieties being largely on the single cordon. Varieties which do specially well include Pitmaston Duchess, Louise Bonne of Jersey, Marie Louise, Williams's Bon Chrétien, and Jargonelle. But, generally speaking, the soil is too light for Pears, and some die away every year. I am planting a number of young trees on one of the walls."

"What about Plums?"

"They are planted on two walls, and I am putting young trees between the old ones. The chief varieties are Diamond, Golden Drop, Pond's Seedling, Belgian Purple, Reine Claude de Bavay, Victoria, and Green and Purple Gage."

"You appear to have an enormous crop of Apricots?"

"I have never seen them so thick on the walls. The principal variety is Moor Park. There is plenty of fruit also on the Morella Cherry wall, and we usually get a good crop."

"Are your Apples chiefly grown as bushes?"

"Pretty well in all forms. You will see them in what we still call the field-trained, on espalier wire trellis. We get enormous crops. Last year there were about three hundred bushels, and in a single day we stored one hundred bushels. Among the best varieties are Schoolmaster (a good keeper), Blenheim Orange, Peasgood's Nonsuch, and Worcester Pearmain. Shall we take the vegetables now, or go into the houses?"

**Roses and Tomatoes in one House.**

"As the rain seems likely to last, perhaps we had better take the houses."

"The first we call the Rose house, but it is utilised for many purposes. We get Roses the greater part of the year, and the heaviest crops

in February and March, the varieties being chiefly Maréchal Niel, Climbing Niphetos, W. A. Richardson, and Madame de Watteville. In the same house are the Tomatoes in pots, of which we gathered the first batch in April. The varieties are Winter Beauty, Satisfaction, and Perfection, the same kinds being grown out of doors in the field. They are equally good, both inside and out. I grow fifty plants in each of eight rows outside, and about three hundred plants inside. Last year, from these pots, I gathered sixty pounds in one day, and five bushels in one day from those outside."

"Do you prefer the Vineries planted outside?"

"No, I do not, but these have been here a long time. The disadvantage is that you cannot control the roots. I am gradually taking out the old rods, and running up new ones. The varieties here are Hamburgh and Muscat of Alexandria. I utilise the space in the centre of the Vinery for Chrysanthemums later in the year."

"How many do you grow for large flowers?"

"About five hundred, and a hundred and fifty as bush plants. My plan is to introduce a few novelties each year, and discard a few old varieties. The new varieties include E. A. Fuller, Violet Carpenter, Frank Tresham, Sidney Penfold, Lewis Giles, Guy Hamilton, and Mrs. Barkley. I grow a good many early-flowering Chrysanthemums in pots, for planting out in the herbaceous borders, principally Horace Martin, Godfrey's Crimson, Market White, and Madame Desgranges (white and yellow)."

"I see you have Sweet Peas in pots?"

"They are principally the Cupid variety, and we have them particularly for getting a few flowers early in May. As to the Sweet Peas outside, of which there are three long rows, they are all of my own saving, not named varieties, and between twenty and thirty colours are represented."

**The Plant Houses.**

"The next house," continued Mr. Russell, "is the cool plant house. The Cyclamen are just over. My plan with them is to sow seed every year, always doing away with the old plants, and I get some fine flowers from the young ones. A large quantity of Azalea indica and mollis are forced, and we have had them in bloom for months. One of the best varieties is the Deutsche Perle, but indica alba is very useful, and Apollo is a fine crimson. Of Zonal Pelargoniums I consider the six best doubles are Henry Jacoby, double West Brighton Gem, Mrs. French, President McKinley, Ville de Poitiers, and Pink Raspail. Malmaison Carnations are grown here in different varieties, and outside is a bed of Border kinds."

"You have a fine long border under the fruit trees of Mrs. Sinkins' Pink."

"Yes, I raise some every year, and have finer flowers in consequence. I generally put them in during the latter part of the summer. The other houses are the Fernery, which is mainly filled with Maidenhair; the stove, which contains a variety of foliage and flowering plants, including Gardenias, Dracænas, Anthuriums, and some of the more tender Palms, such as Cocos; the intermediate house, which has a batch of Gloxinias (the most notable being Her Majesty, a pure white, and the rest Sutton's prize strain), Tuberoses (which we are never without), and Lilies of the Valley, for which we use retarded crowns; and another house which is employed for whatever purpose we need. Just now it contains Hybrid Tea and Tea Roses in pots for cutting, a batch of Tree Carnations, Hydrangeas (Hortense) in pots, and more Gardenias to be retarded."

**Other Early Vegetables.**

"What are the principal vegetables grown in this kitchen garden?"

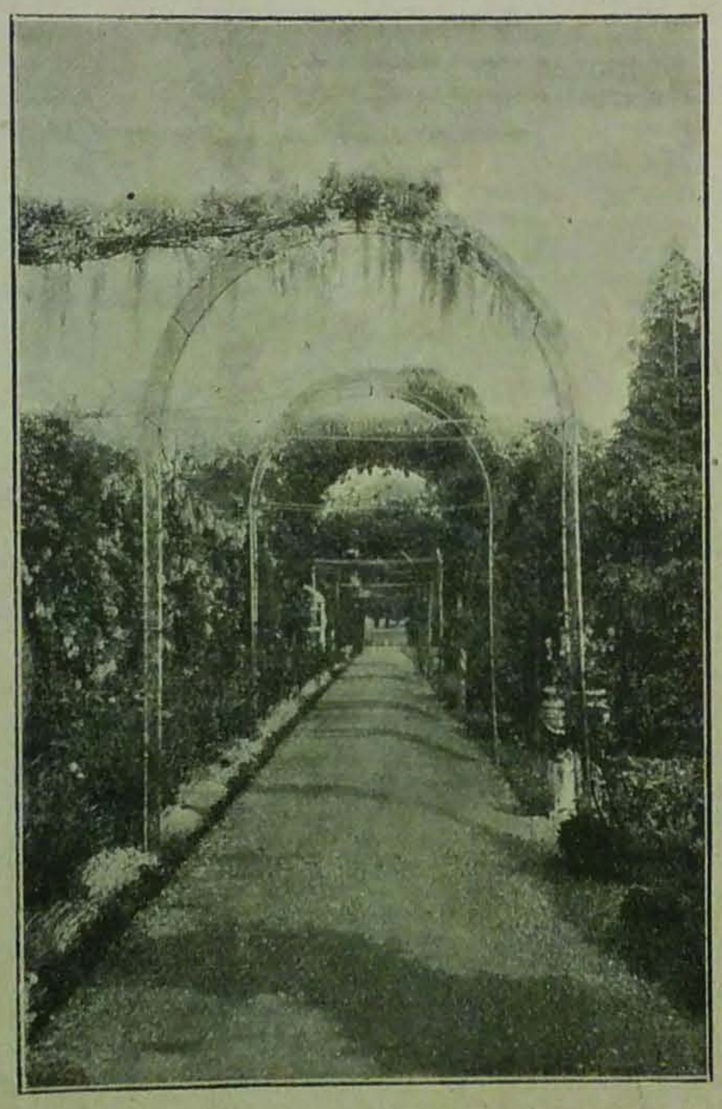
"Peas we have already discussed. A large space is devoted to Sprouts, Cauliflowers, and Onions; the varieties of the last are Ailsa Craig, Exhibition, and Brown Spanish. The very early Broad Beans are the Improved Windsor and the Green Windsor. Underneath one of the Pear walls is a bed of Turnips (Early Milan), and elsewhere is a seed-bed of Winter Kale and Savoys, which we have to net because of the birds. The patch of Broccoli consists of four varieties—Sutton's Late Queen, Sutton's Pearl, Sutton's Bouquet, and Sutton's Latest of All. Now, I think we might go to the field."

"That is where the earlier vegetables are grown?"

"Many of them are earlier, and the Privet hedges were planted to give them protection. We get Tomatoes here on the fence fourteen days earlier than in the open. The treatment of the vegetables is just the same as in the walled garden. There is one point of importance, which is that I never grow the same crop two years in succession, and a change of crop is as good as a dressing of manure."

"When were your Vegetable Marrows planted out?"

"On May 8th, in cloches. They were raised under glass in a little heat; the best are the



THE ARCH WALK AT PAXTON PARK.

Long Green and the Long White. Early Potatoes are grown on a warm border under a wall, the varieties being Sutton's May Queen, Early Regent, and Early Puritan. The best maincrop Potato for this soil is Up-to-Date; but I like to change the seed every second year."

**Celery and Seakale.**

"How much Celery do you grow?"

"A thousand heads. The best red varieties are Standard Bearer and Major Clarke, and the best white are Solid White and Sandringham. Celery does better here than in the walled garden. It was planted out on May 13th. I utilise the space between the Celery plants by planting Tomatoes, which are over by the time we want to finish banking the Celery up."

"How do you grow Seakale?"

"From fresh sets every year. When it is lifted we open a trench about two and a half feet deep, which is equal to trenching it. More than two thousand heads are grown annually. They are fit for use about the end of November. The young plantation of Asparagus was raised from seed, and is two years old, the varieties being Giant French and Reading Giant; Asparagus is also grown on the flat, and I have cut as many as eighteen hundred heads in one morning, all good grass. In a light soil they grow well on the flat. Cucumbers are grown as plants in large pots for winter, and in the summer in hotbeds in the frames; Melons also. Of the former I prefer the old Telegraph and Lockie's Perfection, and of the latter Green Flesh and Scarlet Flesh. In winter the frames are occupied with Violets, of which we grow about two thousand, principally doubles—Marie Louise and Lady Hume Campbell. We can always depend upon the one, and the other gives a better supply of flowers during the latter part of the season."

"How long have you been at Paxton Park, Mr. Russell?"

"For four years. My first appointment as head gardener was at Wood Green Park, Cheshunt, and I have also been head gardener at Avon Castle, Ringwood, and Denham Court, Uxbridge. I started my gardening career at Bambletye, East Grinstead, being afterwards at Belvoir Castle, Perry Hall, Staffordshire, and foreman at Holly Lodge, Highgate. I have not done a large amount of showing, but I am in favour of it, because I think it encourages gardeners to do their best. I show vegetables, fruit and flowers, at Huntingdon, St. Neots, and other local exhibitions."

ALFRED WILCOX.

## Single Pelargoniums for the Greenhouse.

DURING summer some beautiful varieties of single Zonal Pelargoniums may well be purchased, to grow on, from the small plant stage, to give autumn and winter bloom in the greenhouse. They are best kept in a cold frame in semi-shade, and must never be allowed to dry up, or become pot-bound, and any sign of bud-forming must be at once nipped out. If this plan is followed, a glorious blossom results when it is most welcome.

In buying single Zonal Pelargoniums for this use, it is advisable to choose none but the very best, and some of the newest varieties are of rare shades, likely therefore to win extra admiration. Noteworthy among these is Peach, a flower of the shade implied, with a striking white eye; for vase and bouquet use this has a delicate loveliness all its own.

Orangeman is vivid in the extreme, a vermilion in which orange is clearly to be traced, and size and habit are good.

King of Spain has won much praise, but personally I prefer the older Hoppner; the former is excellent in all ways except that the colour is a mixture of salmon and rose-pink, mottled with white, two shades that quarrel; the latter is all a pale flesh.

Two giant-flowering older varieties are Raoul Ponchon, and Rosemonde Rostand, a deepest crimson and a white respectively; if the greenhouse can boast a good collection of these two, blossoming in winter side by side, with a foreground of Ferns, the gardener's reputation will be enviable.

HOBBY GARDENER.

THE Shaddock is a species of the Citrus, or Orange, of which the fruit is often as large as a man's head. It has a very thick rind, and the juice is slightly acid. The young shoots and undersides of the leaves are downy. The name Shaddock is that of a sea-captain who first introduced this plant into the West Indies. The French name for this fruit is Pompelmouse, and the Dutch call it Pompelmoes.

The average takings for the last four years came to £105 for the first day of the Spring Show. But the first day this year the takings realised £175, an increase of £70, so that the removal from the Town Hall buildings to Olympia has been very popular. *Condensed from Newcastle Daily Journal.*

## NORTHERN NATIONAL AURICULA.

April 28.—The above section of the National Auricula Society held its annual show in the Royal Botanic Gardens at Old Trafford, instead of, as in former years, in the Town Hall, Manchester. Coming this year so close upon the great Whitsuntide show, the auxiliary exhibits were not nearly so numerous, and it was consequently an advantage for the florists to have their exhibits placed among the wealth of the Botanic Garden plants. The gardens just now are in a blaze of floral beauty, whether we regard the Tulips and other flowers in the beds, or the many-coloured hues of Indian and other species of Azaleas in the various conservatories. The havoc done by the old American exhibition is almost altogether obliterated. The large winter garden and the spacious heated show-house are quite ready to receive the exhibits shortly to be planted down.

It was in the latter that the collections of Auriculas and Polyanthuses were staged, each plant having an individual beauty about its flowers that kept the eye of the amateur scanning and contrasting plant and plant after the rather imposing ticket-awards were placed. There was a healthy competition; in some cases or classes more than ten competitors tested their strength, and with the Rev. F. D. Horner out of the way, the runners-up were pretty close together. The reverend gentleman sent, not for competition, a beautiful primrose self Auricula, having a white disc. Mr. D. Lord, Todmorden, and Mr. B. Simonite, Sheffield, had the best of it all through in Auriculas; while Mr. Beswick, Middleton, kept in the front rank with the Polyanthuses, which were a limited show, owing to the season we have passed through rushing them, in many districts, out of flower.

For Six dissimilar Auriculas in the "pair" class, Mr. T. Lord was well in front, with Acme, George Lightbody, Rev. F. D. Horner, Mrs. A. Potts (a very beautiful self), and Prince of Greens; Mr. B. Simonite had in his second pair, Lancashire Hero, Magpie, and Rev. F. D. Horner, good; Mr. Irving Hind, Halifax, was 3rd; and Mr. Midgeley, from the same quarter, was 4th, Mrs. Dodwell and Black Bess being good in these lots. Other four prizes were awarded.

Four dissimilar Auriculas.—There were seven lots, in which the better flowers were Luna, Miranda, Jupiter, and Mrs. A. Potts, Messrs. Lord, Simonite, Midgeley, and Woodburn taking the lead.

Pairs of Auriculas, Richard Fisher, Eccles, had Heather Bell and Achilles; and the other prize-takers in their order were James Wood and Thomas Buckley, both of Staleybridge, and J. W. Bentley, of Stakehill.

Green edges, the best was George Lightbody and Alexander Meiklejohn, and the prize-takers were Messrs. Lord, Gorton, Simonite, and others. White edges, Mr. Lord, Usk, 1st and 3rd, with Acme and Conservative, and Miss Woodhead 2nd, with Heather Bell. For selfs, the 1st and 3rd went to Mr. Irving Hind, with Mrs. Potts and Black Bess; the 2nd, R. Gorton, with unnamed seedling. Then dissimilar Alpine Auriculas, Mr. J. Beswick was 1st with Forest Queen, Dr. Knott, Mrs. Beswick, and John Allen; Mr. R. Gorton was 2nd, Mr. J. W. Bartley was 3rd, and Mr. John Lees Middleton 4th.

Alpines shaded, single plants, yellow centres, Mr. Bartley was 1st, Mr. Beswick 2nd and 3rd, and Mr. Beelby 4th.

Alpines shaded, single plants, white centres, Mr. Beswick took 1st and 2nd, with unnamed seedlings; and Mr. Gorton 3rd, with Exonian—a beautifully laced variety, in some cases a little past its best.

There was a brisk competition for the whole of the Alpine classes, and it seemed to be generally remarked that they have never been better shown or competed for in Manchester.

Polyanthuses were sparsely shown, Mr. Beswick taking most of the leading prizes in both black and red grounds, Lancashire Hero and Lancer being the chief among the named sorts, the others taking prizes being chiefly unnamed seedlings.

Miss Hopkins, Mere Cottage, Knutsford, sent an interesting lot of border Polyanthuses, under the names of "Hose in Hose," "Jack in the Green," and "Pantaloon." The floral monstrosities were effective, and will be very showy either in the borders, or in glasses when cut.

# Obituary.

Joseph Rust.—With sincere regret we have to announce the death of one of our oldest and most valued contributors. He died at Eridge on the 26th ult., after much suffering. He was a typical Scotch gardener, and was born at Strachan, in Kincardineshire, on March 26, 1826. He was apprenticed to Mr. Mundie, at Castle Fraser, but soon left Scotland to take a situation at Caen Wood, Highgate. Thence he went as foreman to Eridge Castle, near Tunbridge Wells, the seat of the Marquess of Abergavenny. The head gardener at that time was one of Loudon's lieutenants, Mr. Ogle, also an old contributor to the *Gardeners' Chronicle*. From Eridge he proceeded to Broom House, Fulham, to take charge of the gardens of the Hon. L. Sullivan. Thence, in 1865, he returned to Eridge, where he has been ever since, securing the respect and confidence of all classes, from his employer downwards. Rust, indeed, identified himself with Eridge, and will be sadly missed by the Neville family, and by his neighbours. But he earned more than local esteem — he was widely known in the horticultural world as a thoroughly good all-round gardener, and especially as a pomologist. As a grower, an exhibitor, a writer, a judge on pomological subjects, great respect was paid to him, and this not only for his sound knowledge and careful judgment, but for his high principle and cordial manners. With a rugged exterior he combined the most sympathetic and kindly disposition. He never seemed happier than when contributing to the welfare of others, and this was manifest in all relations of life. Ill-health had necessitated his retirement last autumn, but to the last the Marquess and the members of his family gave abundant evidence of the high regard in which they held the services and character of their old servant. In a subsequent issue we hope to lay before our readers a portrait of one of whom we may truly say that his death leaves the world the poorer. The funeral took place at Eridge Green on Monday, April 30.

# The Weather.

[The term "accumulated temperature" indicates the aggregate amount, as well as the duration, of degrees of temperature above or below 42° Fahr. for the period named: and this combined result is expressed in Day-degrees — a "Day-degree" signifying 1° continued for twenty-four hours, or any other number of degrees for an inversely proportional number of hours.]

| Districts. | Temperature. | | Accumulated. | | | | Rainfall. | | | Bright Sun. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Above (+) or below (—) the Mean for the week ending April 28. | | Above 42°, for the Week. | Below 42°, for the Week. | Above 42°, difference from Mean since January 1, 1894. | Below 42°, difference from Mean since January 1, 1894. | More (+) or less (—) than Mean for the Week. | No. of Rainy Days since Jan. 1, 1894. | Total Fall since Jan. 1, 1894. | Percentage of possible Duration for the Week. | Percentage of possible Duration since Jan. 1, 1894. |
| | | | Day-deg. | Day-deg. | Day-deg. | Day-deg. | 10ths Inch. | | Ins. | | |
| 0 | 3 | + | 42 | 4 | + 147 | — 65 | 4 — | 78 | 21·8 | 47 | 31 |
| 1 | 1 | + | 41 | 10 | + 85 | — 12 | 1 — | 69 | 12·3 | 34 | 36 |
| 2 | 1 | + | 39 | 6 | + 131 | — 59 | 0aver. | 65 | 6·4 | 20 | 34 |
| 3 | 1 | + | 49 | 4 | + 187 | — 98 | 5 + | 61 | 6·3 | 33 | 38 |
| 4 | 0aver. | | 49 | 9 | + 182 | — 86 | 3 + | 67 | 7·5 | 32 | 35 |
| 5 | 1 | + | 54 | 0 | + 184 | — 115 | 5 + | 62 | 8·1 | 37 | 38 |
| 6 | 2 | + | 44 | 0 | + 126 | — 77 | 2 — | 81 | 20·7 | 41 | 31 |
| 7 | 1 | + | 45 | 1 | + 211 | — 123 | 1 — | 71 | 11·3 | 37 | 33 |
| 8 | 1 | + | 47 | 0 | + 187 | — 83 | 6 + | 71 | 12·7 | 52 | 40 |
| 9 | 2 | + | 47 | 0 | + 121 | — 37 | 2 + | 83 | 15·1 | 35 | 30 |
| 10 | 1 | + | 54 | 0 | + 150 | — 69 | 8 + | 82 | 15·2 | 32 | 33 |
| * | 1 | + | 60 | 0 | + 226 | — 18 | 8 + | 72 | 10·6 | 46 | 44 |

The districts indicated by number in the first column are the following:—

0, Scotland, N. *Principal Wheat-producing Districts*—1, Scotland, E.; 2, England, N.E.; 3, England, E.; 4, Midland Counties; 5, England, including London, S. *Principal Grazing, &c., Districts*—6, Scotland, W.; 7, England, N.W.; 8, England, S.W.; 9, Ireland, N.; 10, Ireland, S.; *Channel Islands.

## THE PAST WEEK.

The following summary record of the weather for the week ending April 28, is furnished from the Meteorological Office:—

"The *weather* during this period was unsettled and changeable generally. Some rather heavy falls of rain were experienced in all the more southern and south-western districts, but in the north and north-east the rain, although of frequent occurrence, was small in amount. Thunderstorms occurred in nearly all parts of the Kingdom during the middle or latter part of the week.

"The *temperature* just equalled the mean in the 'Midland Counties,' but again exceeded it slightly in all other districts. The highest of the maxima were recorded on rather irregular dates, and ranged from 65° in 'Scotland, E.,' to 60° in 'England, N.E.,' and to 59° in the 'Channel Islands.' The lowest of the minima were registered on the 22nd over 'England,' on the 28th in 'Scotland,' and on variable dates over 'Ireland;' they were generally rather low, ranging from 24° in the 'Midland Counties,' and 28° in 'Scotland, W.,' to between 37° and 38° over 'Ireland.'

"The *rainfall* exceeded the mean considerably in 'England, E., S., and S.W., and in the Channel Islands, and Ireland, S.,' slightly in the 'Midland Counties and Ireland, N.;' in 'England, N.E.,' the mean was just equalled, while in the other districts there was a deficit.

"The *bright sunshine* varied a good deal in different parts of the Kingdom; it was in excess of the normal in most of the 'grazing' districts, but deficient in the 'Wheat-producing' districts. The percentage of the possible duration ranged from 52 in 'England, S.W.,' 47 in 'Scotland, N.,' 46 in the 'Channel Islands,' to 32 in the 'Midland Counties and Ireland, S.,' and to 20 in 'England, N.E.'"

# Markets.

*COVENT GARDEN, May 3.*

Plants in Pots.—Average Wholesale Prices.

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Adiantum, per doz. | 6 0 | 12 0 | Foliage plants, doz. | 9 0 | 24 0 |
| Aspidistra, per doz. | 15 0 | 30 0 | Genistas, per dozen | 6 0 | 12 0 |
| — specimen, each | 7 6 | 21 0 | Hydrangea, per doz. | 12 0 | 18 0 |
| Azalea, per doz. | 18 0 | 30 0 | Lily of the Valley, p. doz. pots | 12 0 | 15 0 |
| Cineraria, per dozen | 5 0 | 9 0 | Marguerites, p. doz. | 6 0 | 12 0 |
| Cyperus, per dozen | 4 0 | 10 0 | Mignonette, doz. pots | 6 0 | 9 0 |
| Dracæna, each | 1 0 | 5 0 | Palms, various, each | 2 0 | 10 0 |
| Erica, various, p. dz. | 9 0 | 24 0 | — specimens, each | 10 6 | 84 0 |
| Evergreen Shrubs, in var., per dozen | 6 0 | 24 0 | Pelargoniums, p. doz. | 9 0 | 18 0 |
| Ferns, various, doz. | 4 0 | 12 0 | — scarlets, p. doz. | 4 0 | 6 0 |
| — small, per 100 | 4 0 | 8 0 | Spiræa, per dozen | 9 0 | 12 0 |
| Ficus elastica, each | 1 0 | 7 6 | | | |

Cut Flowers.—Average Wholesale Prices.

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Acacia or Mimosa, per bunch | 1 0 | 2 0 | Marguerite, 12 bun. | 1 6 | 3 0 |
| Anemones, pink, 12 bunches | 1 6 | 3 0 | Mignonette, 12 bun. | 4 0 | 6 0 |
| — fulgens, p. 12 bunches | 2 0 | 4 0 | Narciss, French, various, 12 bunches | 2 0 | 6 0 |
| Arum, per doz. bl. | 1 6 | 3 0 | Orchids:— | | |
| Azalea, p. 12 sprays | 0 6 | 0 10 | Cattleya, 12 blms. | 6 0 | 12 0 |
| Bluebells, doz. bun. | 1 0 | 1 6 | Odontoglossum crispum, 12 blms. | 2 0 | 4 0 |
| Bouvardias, per bun. | 0 6 | 1 0 | Pelargoniums, scarlet, p. 12 bun. | 4 0 | 6 0 |
| Camellias, doz. blms. | 1 0 | 2 6 | — 12 sprays | 0 6 | 0 9 |
| Carnations, 12 blms. | 1 0 | 3 0 | Primroses, 12 bunches | 0 9 | 1 6 |
| Cowslips, doz. bun. | 1 0 | 2 0 | Primula, dble., p. bun. | 0 6 | 1 0 |
| Daffodils (Scilly) dbl. 12 bunches | 1 6 | 4 0 | Roses, French, p. doz. | 2 0 | 4 0 |
| — single, 12 bun. | 4 0 | 8 0 | — Tea, per dozen | 0 6 | 2 0 |
| — or Lent Lily, 12 bunches | 1 6 | 2 6 | — coloured, p. doz. | 2 0 | 4 0 |
| Eucharis, per dozen | 2 0 | 4 0 | — yellow (Maréchals), per doz. | 1 6 | 6 0 |
| Gardenia, per dozen | 2 0 | 4 0 | — red, per dozen | 2 0 | 4 0 |
| Hyacinths, per box | 1 6 | 4 0 | Spiræa, 12 bunches | 4 0 | 6 0 |
| Iris, dozen blooms | 1 0 | 2 0 | Stephanotis, dozen sprays | 3 0 | 4 0 |
| Lilac (Fr.), per bun. | 2 0 | 4 0 | Tuberose, 12 blms. | 0 6 | 1 0 |
| ... (Eng.), d. bun. | 2 0 | 6 0 | Violets, Parma, p. bn. | 2 0 | 3 0 |
| Lilium Harrisii, doz. | 2 0 | 4 0 | — Czar, per bun. | 1 6 | 2 6 |
| Lily of the Valley, per dozen sprays | 0 6 | 1 6 | —English, per doz. | 0 9 | 1 6 |
| Maidenhair Fern, per 12 bunches | 4 0 | 6 0 | Wallflower, doz. bu. | 2 0 | 3 0 |

Orchid-bloom in variety.

Vegetables.—Average Wholesale Prices.

| | s. d. | s. d. | | s. d. | s. d. |
|---|---|---|---|---|---|
| Asparagus, English, per bundle (one hundred heads) | 1 0 | 3 0 | Cucumbers, per doz. | 2 6 | 3 6 |
| Beans, French, lb. | 1 0 | 1 3 | Mushrooms, per lb. | 0 8 | 0 9 |
| Cauliflowers, p. doz. | 2 0 | 2 6 | Peas, per lb. | 0 9 | 1 0 |
| | | | Seakale, punnet | 0 9 | 1 0 |
| | | | Tomatos, per lb. | 1 0 | 1 3 |

Old Potatos.

During the last few days inquiries have been more numerous for all kinds, which, with colder weather, has had a tendency to harden prices for all samples.

New Potatos.

Arrivals have increased, and prices slightly lower. *J. B. Thomas.*

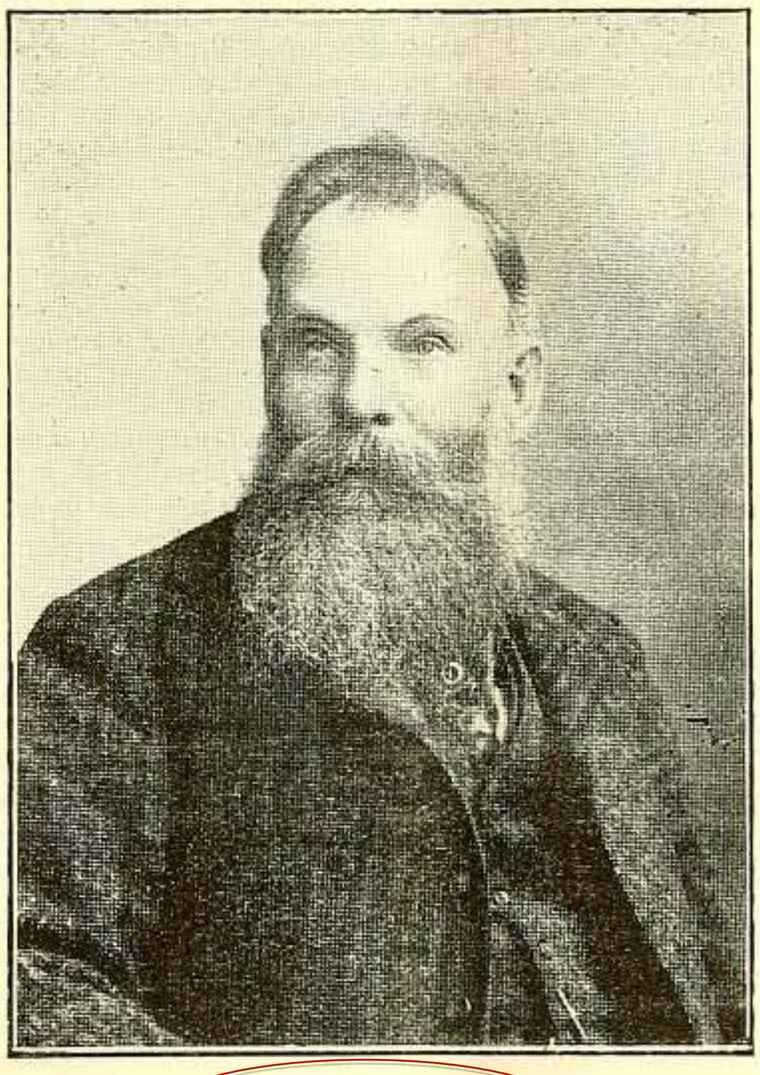
flower; there were two standard trees—standards are preferred here, because they grow less strong, and flower more freely. This pretty leguminous plant, with flowers of deep rose, is very effective when it flowers freely. On one of the garden walls is a plant of Tamarix gallica, not often seen so vigorous at such a distance from the sea. It was just about to flower abundantly; already its pink flowers, in catkin-like spikes, were opening, and it looked very uncommon. Akebia quinata had also flowered on an outside wall; Viburnum plicatum and V. macrocephalum were covered with bloom in a like position, and Olearia Haastii was doing very well in the beds. Genistas on Laburnum stocks, weeping and erect, had been very fine, but the greatest display of all was from Clematis montana. In front of the gardener's cottage it had been allowed to climb pillars, cover stone walls, and even run over bushes, in each place forming a sheet of snowy-whiteness not soon forgotten.

The Peaches on a south wall outside deserve a word in passing, they are looking extremely well, and have set large crops. Pea Earliest of All, would be ready to pick on the 1st of June. Most of the vegetables are grown in a garden near the farm, a little removed from the gardens proper. Sweet Peas are quite a speciality, for there are no fewer than seventy kinds grown, and these include the newest and best varieties of Mr. Eckford's strain. Before looking in the houses, it is a real pleasure to declare that the cruel frosts of the 18th, 19th, and 20th of May were not felt in the least at this charming place. Potatos, Strawberries, and all the other more tender plants showed not the faintest sign of injury, although not a hundred yards from Henley Station, at a very much lower level, we noticed that Rhododendrons were severely cut.

### The Glass Department.

The houses devoted to the culture of plants, fruit, and flowers, are quite consistent with and proportionate to the grounds outside. There is a great number of them, and some are large, particularly one known as the tropical-house, and another as the temperate-house. In the tropical-house are many interesting plants, some such as are not commonly seen in private gardens, though they be ever so old, and we venture to think ever so worthy. There is a rafter-yonder well covered by a plant that was introduced from Brazil a century ago all but two years, and one that is quite worth acquaintance. Stigmaphyllon ciliatum has handsome velvety-looking leaves, and withal its pretty and botanically interesting golden-yellow flowers are showy and much resemble those of an Oncidium. It is known as the Golden Vine, but we have also heard it described (not inaptly), as the climbing Oncidium. The plant is very easy to manage if planted into peaty soil, and given plenty of water and fair heat. Aristolochias are well represented in this house. First we see A. gigas that has perfected three or four of its large handsome flowers this season. It is malodorous in the extreme, but all gardeners should have made its acquaintance because of the really fine picture it presents, and the objectionable odour can soon be got rid of by ventilation. Mr. Stanton says that the worst of the odour passes away in an hour or two. However, some of the smaller species are not nearly so bad in this matter. There is a very old plant of A. ornithocephala: it is very free-flowering, has large purple blooms, which, from their wonderfully curious formation, have been supposed to resemble a bird's-head. A. tricaudata is a shrubby species, and its brownish-purple flowers, with three tails, are produced from the old hard stems. One of the most continuous bloomers is A. Duchartrei, from Upper Amazon; the flower is cream-coloured, blotched with purple, and in form resembles a German pipe. A. ridicula was only introduced about eight years ago from Brazil, and in form perhaps it is most curious of all; the flowers are only about 3 or 4 inches long, but it is one of the best. About three years earlier than the last-named, A. elegans was introduced, and is the most beautiful of any mentioned here. The limb of the flower is a soft cream-colour, and it has a fine yellow throat, encircled by a deep purple blotch; it is not more than 3 inches long, and rather less in width. Part of the roof of this same house is covered with Bougainvillea glabra, quite smothered with well-coloured bracts and flowers, and having plenty of room to revel, it is thoroughly at home. B. speciosa is here, and liked too, for it flowers from February to May, and is rather deeper in colour than B. glabra. Another plant differing from either of these, but not now in flower, would no doubt be B. spectabilis. Hibbertia dentata creates a splendid display of yellow when in flower, and Thunbergia Harrisii contributes fine blue flowers. All of these, and many other climbers, are planted out, none are grown in pots.

The hanging baskets here deserve noting. They consist of an Egyptian bowl made of very porous material, which is kept filled with water, the Ferns in this case consisting wholly of Adiantums, are upon



The Late Joseph Rust.

We have now the opportunity of giving a portrait of this typical specimen of a gardener, of whose life and labours we spoke recently, at p. 573.

the outside, with just a little peat, and the moisture they require is obtained from the bowl, through which the water exudes. They were pretty objects, thoroughly well covered with Fern, and watering only means keeping the bowl filled—a very much simpler operation than when the Ferns are planted in a large basket.

In the temperate-house was once a fine collection of great cordon Cherries, but as these became worn-out, they have not been replaced, only a few of them now remaining. Palms, Japanese Acers, Pelargoniums, border Carnations, Statices, and multitudinous other plants, are now accomodated in their stead. Carnations form a feature of the place, and are cut during the whole of the year, but the Malmaison type is not represented.

We must not stay to notice in detail the rest of the houses; many of them are devoted to Grapes, some of which are now ripe, and all of them exhibiting the same careful management, and successful culture everywhere noticeable. Peaches, too, are in abundance, and merit particular notice, from the uncommon health they possess, and the large crops of fruit they now carry. Peaches and Roses, indeed, are great favourites, and we couple them together, because Mr. Stanton, departing from the firm belief of many gardeners, that any flowering plants in fruit-houses are objectionable, almost invariably has them growing in the same house. In most houses Peaches are seen on the front trellis, and Roses on the back wall, and occasionally the Roses have been permitted to stray a quarter way down the trellis also. Whether the system is bad or not, the results Mr. Stanton can show will meet any criticism, and in reply to our question as to how he kept the Roses clean at all times, he replied that preventive measures were used early, and for mildew he required nothing more effective than soft-soap and warm water.

In a range of span-roofed houses are the few Orchids that are grown, amongst which we are bound to mention two very fine plants of Cœlogyne Lemoniana, 3 feet across, and in perfect health. Nepenthes, too, are represented by several species and varieties. The one most prized and most grown is N. Mastersiana, because its pitchers are fine, and the constitution of the plant is good. One of the divisions is splendidly clothed with Lapagerias, and must present a grand display when fully in bloom. Two houses are well-filled with Figs, some ripe, most of them being Brunswick. We can never understand why Figs do not find a home in every garden, and some of the newer varieties that can be seen growing at Chiswick encouraged rather than the older sorts—their flavour is much better. On the back wall of one of these Fig-houses there are Lemons, Citrons, and Guavas (Psidium Guaiava). One of the wider lean-to houses has the roof covered with Allamanda Hendersoni, and Bananas are fruited under them. Here also was Ficus repens, bearing its three various forms of foliage, the fruiting form bearing no resemblance to the small leaf in its early youth. Strobilanthes Dyerianus has been added to the decorative plants.

In the fruit-room an arrangement for keeping Grapes has been copied by Mr. Stanton from the French growers at Frontignan. A framework is built, and in the place of shelves two strong laths run from end to end, about 2 inches from each other, and each on its side. They are put at an angle to throw the Grapes forward, and the bottles that are used are of transparent glass. The lower part of each glass is narrow, and passes through the laths, whilst the top part is made so as to rest on them, and the glasses, therefore, easily slide either one way or the other. The advantages the system offers are:—First, the bottles being transparent, it can be easily seen when more water is required; second, when arranging the bottles, they can readily be put at any distance from each other required by the bunch of fruit. The mouth of the bottle is not closed at all; there is evaporation, but the water is very easily replenished. It is said that the Grapes keep as well or better, and that they never shrivel, through the water having evaporated before it has been noticed, as is sometimes the case with the ordinary black bottles. Several gardeners have introduced the system, and prefer it, but the bottles have been procured (we think) in each case from France.

Any notice of Park Place would be incomplete without some reference to the accommodation provided for the young men in the bothy. The arrangements are commendable; each of the seven men possess a bedroom, and a good hall and kitchen are provided. A small garden-libary is also kept.

In closing this by no means exhaustive description of a fine garden, a word of praise is due to Mr. Stanton for the encouragement he has given years ago to any of the young gardeners desirous of studying botany. He is a qualified instructor under the science and art department at South Kensington, and at one time held a class in the garden. He also accompanied them on botanical wanderings in the evening, and they well searched the district for eight miles round, securing about 170 species of British plants, and including about seventeen Orchids. We were pleased to find that Mr. Stanton was a brother Kewite, having left Kew some thirty years ago, and we think this may account for the fact that the place has other features and plants than are met with generally. *P.*

**RUST** Isaac Arnold of Stowmarket Suffolk gentleman died 14 May 1894 Probate **Bury St. Edmunds** 12 July to Edwin Stearn farmer and Thomas Simpson bank manager Effects £847 19*s.* 6*d.*

**RUST** Joseph of Eridge Sussex gardener died 26 April 1894 Probate **London** 4 August to Helen Rust widow and William Rust and William Cable land stewards Effects £1514 9*s.* 9*d.*

**RUSTOMJEE** Lowjee Annie of Fatehgarh North-west Provinces India (wife of Cursetjee Rustomjee) died 7 August 1894 Probate **London** 5 October to the said Cursetjee Rustomjee indian civil servant Effects £1907 11*s.* 4*d.*

**RUSTON** Joseph of 39 Carlton-street Moss side near Manchester died 3 July 1894 Probate **Manchester** 25 July to Ellen Ruston widow Effects £261 17*s.* 11*d.*

**VON ALSO-RUSZBACH** Rafael Mayer. *See* "**VON ALSO-RUSZBACH.**"

**RUTENBERG** Johann Georg of 33 An der Weide Bremen Germany gentleman died 27 April 1893 Administration (Limited) **London** 28 February to Paul Springmann solicitor the attorney of Aloysa Maria Dorothea Rutenberg widow Effects £1560.

**RUTHEN** John of 102 Hamilton-terrace Swansea master mariner died 29 May 1894 at Morfa copper works Swansea Probate **London** 4 July to Harriet Ruthen widow Effects £550.

**RUTHERFOORD** William of 19 Osborne-place Aberdeen died on or about 21 February 1893 Confirmation of mrs. Margaret Will or Rutherfoord widow Sealed **London** 12 February.

**RUTHERFORD** Andrew of Bank house Warkworth Northumberland farm steward died 1 June 1894 Administration **Newcastle-upon-Tyne** 31 August to Mary Rutherford widow Effects £285 19*s.* 3*d.*

**HENDERSON or RUTHERFORD** Elizabeth Mill. *See* "**HENDERSON.**"

**RUTHERFORD** Hannah May of Pulborough Sussex widow died 14 October 1894 Probate **Chichester** 6 November to Ann Sarah Rogers spinster Effects £71.

**RUTHERFORD** Thomas of Burnhope Weardale county Durham farmer died 26 December 1893 Probate **Durham** 23 January to Thomas Rutherford farmer and George Pattinson contractor Effects £440.

**RUTHERFORD** Thomas Kirkley of 79 Granville-road Blackburn schoolmaster died 26 July 1894 Administration **London** 31 August to Mary Elizabeth Rutherford widow Effects £61 14*s.* 6*d.*

**RUTHERS** William Robert of Mill end Blakeney Gloucestershire died 31 December 1893 Probate **Gloucester** 31 January to James Wintour Phelps schoolmaster Effects £119.

**RUTHVEN** the honourable Anna Hore of 8 Pitt-street Portobello died 8 April 1894 Confirmation of the honourable Jane Stuart Ruthven or O'Grady widow and John Francis William Deacon Sealed **London** 21 May.

**RUTHVEN** Jane Alice of Eccles Lancashire (wife of Alfred Edward Ruthven) died 8 December 1893 Probate **London** 25 January to the said Alfred Edward Ruthven merchant Effects £557.

**RUTLAND** James of 43 Balham-high-road Balham Surrey retired butcher died 21 January 1894 Probate **London** 16 February to Stephen Rutland retired butcher and Thomas Betts Rutland grocer Effects £7922 5*s.* 9*d.* resworn January 1895 £8166 14*s.*

**RUTLAND** Letitia of 27 Prospect-place Leytonstone Essex widow died 8 April 1894 Probate **London** 27 April to George Frederick Shepherd inland revenue officer Effects £1544 18*s.* 9*d.*

**RUTLEDGE** Henry Trubshaw Bell of 47 Stamford-road Kingsland Middlesex died 18 April 1894 Probate **London** 5 June to Arthur Forrest Henry commercial traveller Effects £14 8*s.*

**RUTLEY** Edward of Motcombe Dorset gentleman died 21 November 1893 Probate **Blandford** 24 November to Albert Rutley and Bernard John Rutley farmers Effects £106 3*s.* 1*d.*

**RUTSON** John of Piper-road Norbiton Surrey died 13 May 1892 Probate **London** 11 December to John Abednego Foster stonemason and Ellen Foster (wife of the said John Abednego Foster) Effects £10.

**RUTSON** Sarah of Grosvenor cottage Piper-road Norbiton Surrey widow died 31 July 1894 Probate **London** 3 September to John Abednego Foster stonemason and Alfred White engineer's clerk Effects £278 9*s.*

**RUTTER** Arthur Thomas of 444 Hornsey-road Holloway Middlesex died 29 December 1893 Probate **London** 19 January to Samuel Smith coal merchant Effects £271 15*s.* 11*d.*

**RUTTER** Elizabeth of 106 Fort-street South Shields (wife of John Rutter) died 14 September 1894 Administration **Durham** 5 October to the said John Rutter gentleman Effects £144 3*s.* 10*d.*

deposits of lime in the cells. It is known that such deposits eventually kill Rhododendrons and Azaleas, planted in a soil containing any form of lime, and trees with stone fruits must always be supplied with lime, because they cannot elaborate their fruits without it. If, however, the lime is in excess—as it must be where, for example, the subsoil is chalk—some of it cannot fail to be deposited in the cells, where it will impede the circulation. And this effect would be the more pronounced in the weaker-growing trees, the Peaches and Apricots, than in the stronger, the Plums and Cherries. As, in fact, it is.

April 4th.—The illustration is a remarkable instance of the manner in which the sap, issuing from the cambium layer of a tree, forms a cicatrix, or protective covering, over a wound.

**Information Required.**

At various times, correspondents have sent me descriptions of changes in the flowers or other parts of plants which have grown for many years in the same positions, and with the same surroundings. Unfortunately, their letters have not been kept; and I shall be greatly obliged for accounts of any changes of this kind, provided that they can be certainly guaranteed. Full particulars should be given, especially the names, colours of flowers, etc., of other plants growing close alongside.

H. C. Davidson.

# A Successful Raiser of Specimen Flowering and Foliage Plants.

INTERVIEW WITH MR. W. RYE, AT THE GARDENS, MALMAINS, FRENCHAY.

FISHPONDS, the station for Malmains, does not suggest charming scenery; yet a drive of a few miles reveals the fact that even the suburban builder has not spoilt some portions of the environs of Bristol. Captain Belfield, the owner of Malmains, is himself a considerable authority on plant cultivation, and has taken a great personal interest in augmenting and improving the collection which his gardener, Mr. Rye, was able to show me on the occasion of my visit in February.

"I am essentially a plant man," said Mr. Rye, soon after my arrival, "and while, as you will see, there are other features of interest here, the cultivation of specimen and foliage plants is our speciality. As this is the case, we might begin with the stove, which is in three divisions."

"We could not do better, and I notice that Crotons are largely grown."

"Yes, we grow them in 18-in. pots, as specimens, to remain here all the year round, and I also show a great many of them. At the end of the season we turn them out, cut off a piece large enough to allow for fresh potting, and put them back in the same pots. The varieties used for this purpose are Warrenii, Williamsii, and Victoria. We grow several other varieties of the smaller Crotons, such as Mrs. Dorman, Reidii, Nestor, Sunset, Andreanus, Laingii, and Flambeau."

"Do you go in for many Rondeletias?"

"No, only for a couple of specimens. Our numbers are not large, but we aim at quality. Rondeletias require just ordinary stove treatment. We get them to flower at the end of July, and they have not yet quite finished. Near the Rondeletias, in a very large pot, is a specimen of Pandanus Veitchii."

"You have a number of Pines here."

"Between two and three dozen. The varieties are the Queen's Pine and Smooth Cayenne. We have had good fruit from them for the last five years."

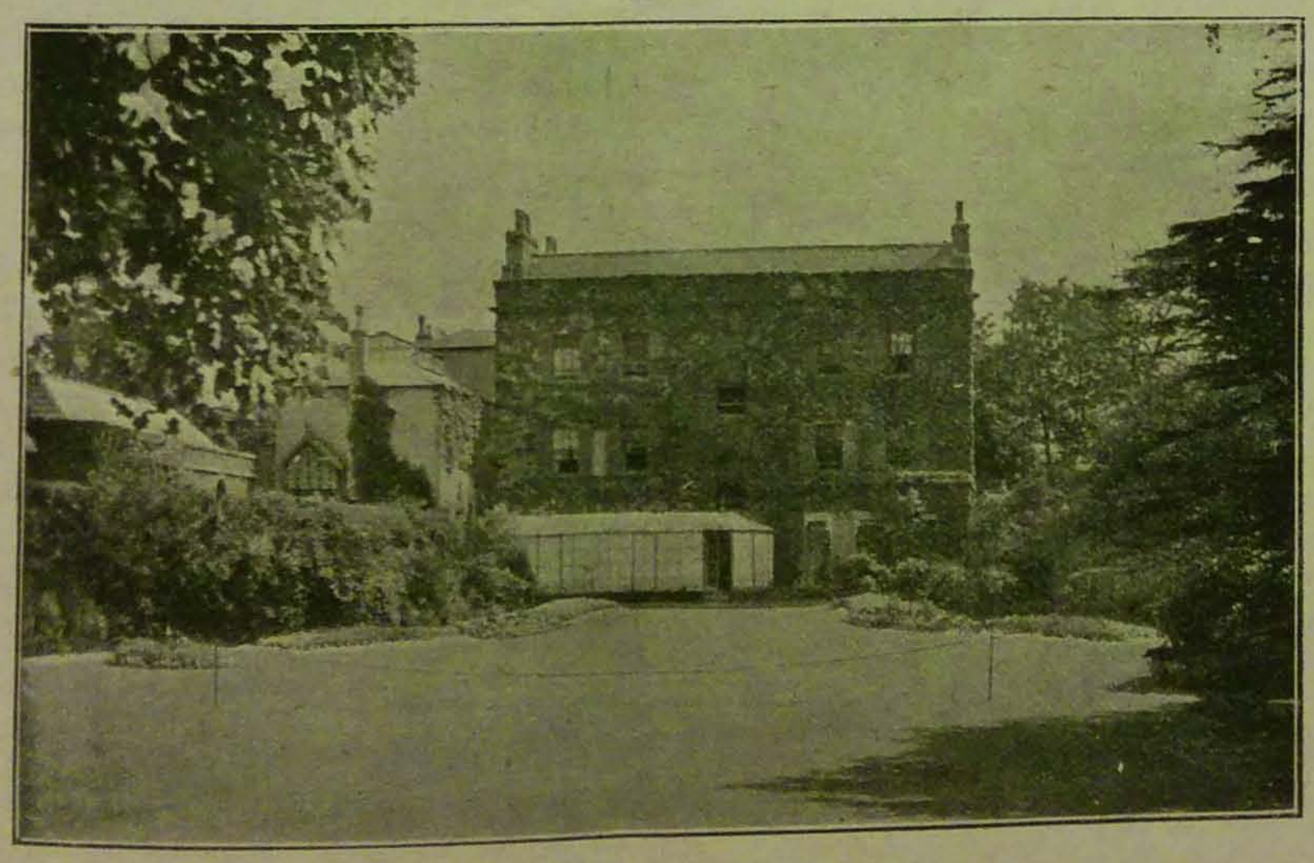
"How long do your Anthuriums throw out spikes?"

"Some of them, such as A. Farleyense, which is in a 20-in. pot, throw out spikes all the year round. A. crystallinum is grown for its foliage; it is a splendid plant during the summer. So is A. Andreanum, the scarlet. Both of these are in 17-in. pots."

"What is your treatment of Anthuriums?"

"We grow them in rough peat, give them plenty of drainage and plenty of water. Also, they like plenty of heat."

"You seem to have several Ferns grown as specimens?"

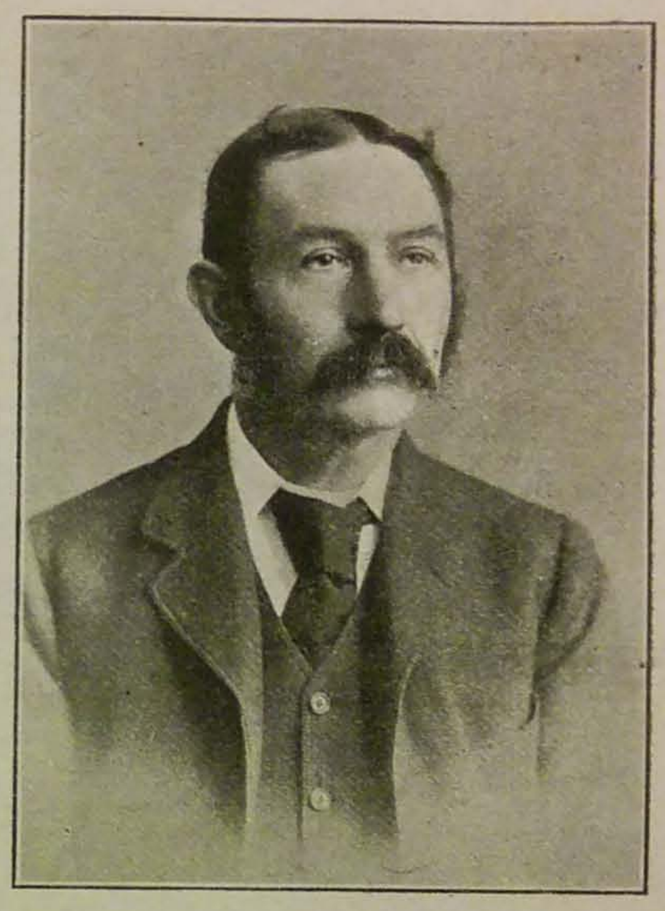


Malmains, Frenchay, Bristol.

"Yes, Captain Belfield is exceedingly fond of Ferns, and I admit that I am an enthusiast. The specimen you are now looking at is Nephrolepis davallioides furcans. We also grow Gymnogrammas in variety, and in varying sizes. They include G. chrysophyllum Laucheanum, tartarium, and Calomelanos, which makes an exceptionally nice plant in the summer. Near the Gymnogrammas are pots of Nephrolepis rufescens tripinnatifida."

"They are very fine specimens, also the Davallia in a large tub."

"When we show that Davallia—the variety



Mr. W. Rye.

is Fijiensis plumosa—in the summer, it is eight feet across. Now it is only two feet. The Adiantums include A. fragrantissimum and lardiochlœna. Another plant shown in the summer is Alocasia metallica; this will be six feet across in July."

"When do your Bananas in tubs fruit?"

"In summer. Some ripen in winter, but the summer fruit is superior. I potted these trees in loam and manure, and gave them plenty of water. Too much water cannot, indeed, be given. Two of the trees fruited last summer, but the other two are only young plants, taken off the old one in August. Bananas fruit in less than a year if large suckers are taken off the old plants. The variety is Musa Cavendishii."

"Can you tell me the age of the mighty Palm in a tub?"

"About thirty years, I think. When I came here it was in an 18-in. pot. I have had it out on several occasions. Once I got a spade and chopped it round, but nothing has checked its growth. The house is not high enough for it, now. The variety is Areca lutescens. Just beyond are Clerodendrons at rest. There are two or three specimen plants of C. Balfourii in 18-in. pots. We flower them in August for the show, but with difficulty. They have to be carefully worked up. The natural flowering time is in May."

**Allamandas for Show.**

"Then, there are the Allamandas, of which you have fine specimens in 18-in. pots. Do you show these?"

"Yes, and we have to remove the door in order to get them out. They cover the trellis."

"How do you treat them?"

"We pot them in loam, and give them a little peat and manure. When they are turned out of the pots, we knock off all the soil we can, and repot them Allamandas are very gross feeders, and take all the nutriment out of the soil in twelve months. As soon as the flowers are set up, we give them a quantity of

manure-water. The varieties are A. nobilis and A. magnifica.

"As to other plants in the stove," continued Mr. Rye, "Phydanthus nivosus has very pretty foliage; we force a few Lilacs in pots for conservatory use; about fifty Saintpaulia are grown, and mixed with Panicum variegatum they look nice on the table. As to Orchids, they are, chiefly, Cypripediums and Cymbidiums, with a few Pitcher-plants. Others are

Dendrobium nobile.

in the intermediate house, which we are now entering."

"Including more Cymbidiums?"

"Yes, C. giganteum and Lowianum; also a few Cœlogyne cristata, eight pans of Cypripedium insigne, and a few Brassiæ verrucosa."

"I observe that, instead of growing Stephanotis in the stove, you grow it in the intermediate house."

"The advantage is that the flowers have much more substance, and the wood is shorter-jointed than if they were grown in the stove. We found that out by retarding them. They are kept here all the year round, with a temperature at night of fifty degrees. Statices are also grown for show in 17-in. pots. They require a lot of feeding, and are potted every other year. When they are in flower, there is a difficulty in getting the pots through the door. The varieties are S. intermedia and profusa. Bougainvillea glabra and another variety are grown in 17-in. pots, and fed largely with manure-water in the summer. We find that Asparagus plumosus nanus is useful for house decoration, grown in 4-in., 5-in., 6-in., and 7-in. pots. We grow about fifty Arum Lilies, and about the same number of Cyclamen; from three to four dozen scented Geraniums in variety, and three to four dozen Abutilons."

"How many Zonal Pelargoniums do you flower?"

"Between sixty and seventy. The best varieties are, I think, Lord Salisbury, Mrs. d'Ombrain, Madame Carnot, Golden Glory, Favourite (double white), California, Agnes, Andrew Lang, Rudyard Kipling, Wonderful, and Mrs. Adelaide Burneese (like a Picotee). The Ivy-leaved varieties are Ryecroft Surprise, Furston Joseph von Hohenzollern, Murellis, and Lavoisier (very pale flower). On the wall, Heliotropes are in flower all the year round, and you might make a note of the Streptosolen Jamesonii and the Lachenalia Nelsonii, which are just coming on. All these last, however, with the Arums, are only used for house and conservatory work. The two next houses are used for forcing. The first will be full of Tomatoes, the varieties being Up-to-Date, Holmes's Supreme, and Victor. We had the latter for the first time last year, and it did very well. The house has been full of Begonias—Gloire de Lorraine and Turnford Hall."

"And you grow Cucumbers in the second?"

"Cucumbers and Melons; of the former, Sutton's Telegraph and Matchless; of the latter, Sutton's Triumph and Scarlet. Although the Eucharis amazonica, which are now in flower, are grown in 17-in. pots, we do not get them up for show. They are kept in a little heat, and we let them flower as they please. On the other side are several pots of Pancratium fragrans, which we treat in the same manner as the Eucharis. Resting in this house are batches of Caladiums and Poinsettias."

**Fruit in Pots.**

"You also grow your fruit in pots," I said, as we entered the Peach house.

"Both Peaches and Nectarines. The varieties of the former are Crimson Galande, Royal George, and Violette Hative. Of the latter, Pineapple, Lord Napier, and Pitmaston Orange. The trees fruit just as well in pots as on the wall, and we seldom get a failure. At the end of the summer, we take the pots out of doors, plunge them in manure, and bring in the Chrysanthemums."

"What kinds, chiefly?"

"Japanese and Incurved. They are grown entirely for house decoration. The best Japanese include Wilfrid Godfrey, Guy Hamilton, General Hutton, Mrs. A. Cross, Mrs. J. Thompson, F. S. Vallis, Mrs. A. T. Miller, Sir W. Raleigh, Mrs. White Popham, Lady Conyers, and Countess of Warwick. Just outside this house, in a warm place, we grow a patch of Strawberries—President and Royal Sovereign. In the next house you will see some more specimen plants."

"What is this house called?"

"The Palm house; and the Palm at the entrance, Cycas revoluta, has been shown in an 18-in. pot. So has the Kentia Fosteriana, which, grown on from a table-sized plant, is now as high as the house itself, which is very lofty. Before it reached its present height, I showed it constantly."

"Some of the other Palms must be of considerable age."

"The Areca sapida, of which there is a fine specimen in the tub, is thirty years old, and the two specimens of Chamærops excelsa are the same age. Other Palms are the Date Palm (in a tub), Phœnix canariensis, and Kentias australis and Belmoreana. In pots on the ground, under the shade of the Palms, are a number of Asplenium bulbiferum, as well as three or four varieties of Selaginellas."

"Do you show any of the Ferns here?"

"Yes, the specimen of Alsophila excelsa, in its 17-in. pot, the lovely fronds of which are much admired. Anyone who wishes to have fine specimens of this Fern should start them in a basket and grow them on. Of course, the big Tree Fern, Cyathea medullaris, is a very old plant. Then, I think that a specimen of Asparagus plumosus nanus, grown in a tub, and which we use for cutting, is worth mentioning. It is from six to seven feet across, and if we want to show it we take it out for that purpose. Now you must see our collection of Todæas, which have a house all to themselves."

**The Todæa House.**

"How many plants are there in it?"

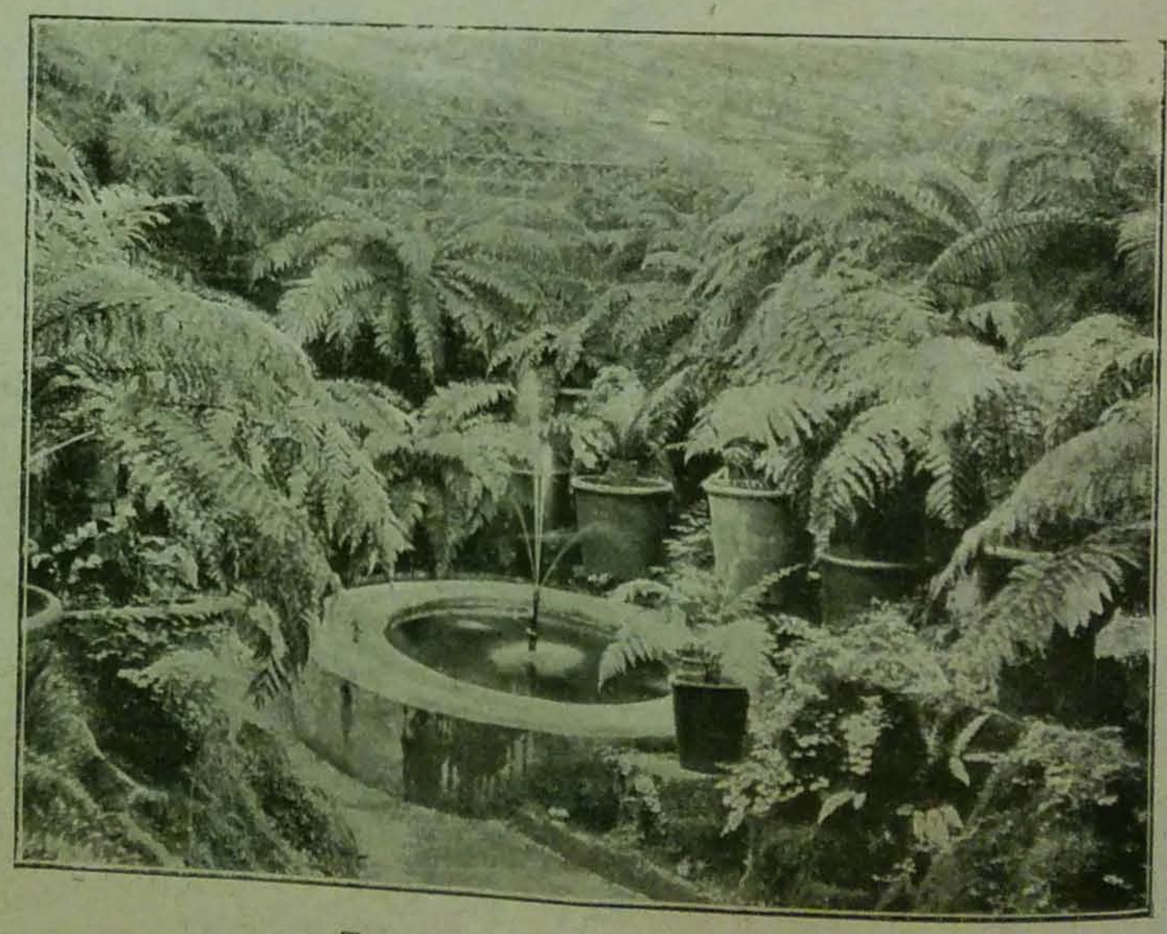
"About fifty, some of the heads being from seven to eight feet across. These plants were collected in New Zealand under the personal supervision of Captain Belfield. They are of different ages, and all are grown in pots. The principal varieties are superba, barbata and pellucida."

"What is your treatment of them?"

"They require to be grown in a cool house, with plenty of moisture, hence the fountain. The frost does not hurt Todæas, but, on the other hand, they will not stand air. It shrivels them up at once. We used to show them, but hot air is as injurious to them as cold. They make a very pretty show at all times of the year, and the shade of green is different from that of most Ferns."

"Have we any more houses to see?"

"There is the conservatory, which is filled with plants, according to the season, and there are two old Vineries, which were built forty years ago, and used to be heated by the old-fashioned flue. They are now heated on the modern principle."



The Fernery at Malmains.

"The Vines appear to do well."

"Yes, because we keep on running up young rods every two or three years. In the early house, the varieties are Muscat, Foster's Seedling, and Black Hamburgh; in the late house, Black Alicante, Lady Downe's Seedling, and also Black Hamburgh. In the winter, of course, the Vineries are largely used for bedding plants."

"You also have some Cinerarias and Primulas in flower."

"And we go in rather largely for Primulas, growing, chiefly, Sutton's stellata and Sutton's Superb Mixed. The Cinerarias are stellata, Sutton's strain. A special feature with us is the Schizanthus. We grow from forty to fifty plants of Garraway's strain, and generally have a fine show of blooms later on."

**Spring and Summer Bedding.**

"Now, as to the pleasure gardens?"

"They are not large, but on the lawn are two or three fine trees, notably a Tulip tree and a Cedar of Lebanon."

"Also a very fine bank of Rhododendrons."

"The bank consists of one plant which presents a remarkable sight when in bloom. The spring bedding consists largely of Wallflowers, with Tulips and double Alyssums. The favourite Wallflowers are Sutton's Western Queen and Eastern Queen, Dark Red, and Cloth of Gold. In the summer the beds are filled with different varieties of Geraniums, Lobelias, and Calceolarias. There is a large bed of the Tobacco plant (Nicotiana), mixed with the variegated Maize."

"Then there are the Roses?"

"In addition to the two beds here, there is a large one opposite the Vineries, all devoted to Roses. The varieties are Frau Karl Druschki, Gloire Lyonnaise, La France, Madame Abel Chatenay, Niphetos, White Maman Cochet, William Allen Richardson, Dorothy Perkins, Papa Gontier, Viscountess Folkestone, Cheshunt Hybrid, Antoine Rivoire, Caroline Testout, Grace Darling, Horace Vernet, Lady Battersea, Ma Capucine, Madame Hoste, and Souvenir de S. A. Prince. Of course, I have not given the names in sections, but these embrace practically all we grow, many being climbers on the trellis."

"Do you grow any Border Carnations?"

"Only a few, in three varieties, these being Duchess of Fife, Eric Hambro, and Old Clove. Lilies are grown in the pond attached to the fountain, and we have a considerable number of varieties in our herbaceous borders, under the Roses on the trellis, and at the back of the house."

"I should like to know some of the varieties of herbaceous plants which thrive here."

"Anemones in variety, Bocconia cordata, Campanulas in variety, Delphiniums, Doronicums, Eryngiums, Galega officinalis, Hemerocallis aurantiaca major, Helianthus in variety, Heuchera sanguinea, Iris in variety, Monarda didyma, Papaver orientale, Potentillas, Rudbeckias, Scabiosa caucasica, Solidiago compacta, Statice latifolia, Lychnis, Gypsophila paniculata, Tree and herbaceous Pæonies, and Montbretias. Sweet Peas are planted in clumps in distinct colours; and in the kitchen garden there is an archway with Roses, Clematis, and Jasminum, with several smaller rustic arches covered with Roses."

**The Kitchen Garden.**

"How large are the gardens altogether?"

"With the field, about eleven acres. There is nothing very remarkable in the kitchen garden, and, there being no walls, we have no walled fruit. Apples on espaliers and standards do very well, especially Blenheim Orange, Ribston Pippin, Cox's Orange Pippin, Barnack Beauty, King of the Pippins, Quarrenden, Bramley's Seedling, Cellini Pippin, Ecklinville Seedling, Golden Noble, Hawthornden, Lord Derby, Lord Suffield, and Nelson's Glory."

"What about Pears?"

"They do not flourish here. The soil is hot and sandy, and not suitable for them. We have a few Plums, and a few Morella Cherries. Bush fruit does well, and it is grand soil for vegetables. We get late Celery in the same ground as early Peas."

"What are your varieties of Peas?"

"William I., Exonian, Gradus, Telephone, Gladstone and Autocrat. The best variety of Celery is Burbank's Solid Red. The three varieties of Potatoes are Duke of York, Sir John Llewelyn, and Up-to-Date. The two beds of Asparagus were here when I came, and they are stronger now than they were eighteen years ago. I give them a good dressing of manure every fall of the year, and a quantity of salt in the spring. We force a batch of Seakale, and have some fit for cutting now. Rhubarb we have been pulling since the middle of January."

"Are you a Gloucestershire man, Mr. Rye?"

"No, I am a Kentishman, and came from Messrs. Veitch's Nursery to Sneyd Park as foreman But I commenced my gardening career at High Trees, Redhill. Then, at the end of three years, I went to Pebble Coombe, near Epsom, for a couple of years. Next I was at Oswalds for four years, subsequently returned to Sneyd Park as head gardener, and was there in that capacity for eleven years. During that period I did a lot of showing."

"What kind of showing?"

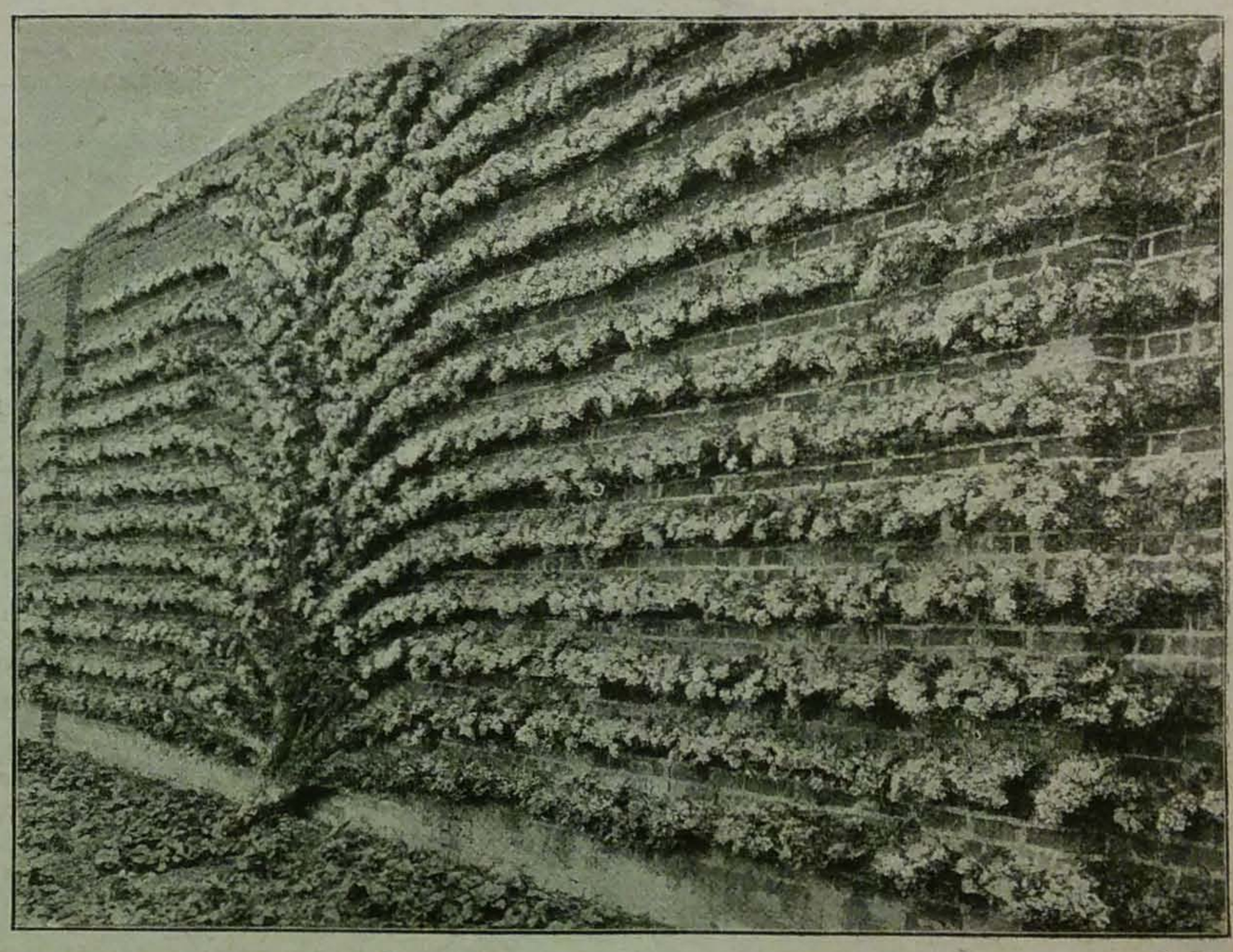
"Chiefly specimen flowering, and foliage plants, as we show them here. I have always also fond of growing Chrysanthemums, and I am also fond of growing Chrysanthemums, and am on the committee of the Bristol Chrysanthemum Society, which has been forty years in existence, and is managed entirely by professional gardeners."

ALFRED WILCOX.

# Letters from a Lady Gardener.

No. 296.—HOW TO TREAT FRUIT TREES.

DEAR KATE,—A fortnight ago I promised to write to you on the subject of your fruit trees, for I know you like Pears, Apples, and Plums, and it is really a great pity that so many of our British fruits, which ought to be abundant, are too often the reverse. Last year, for instance, the gardens and orchards were white with blossom, and everyone was jubilant at the prospect of plenty of fruit. But, after all, the bitter winds which blew just as the early bloom was expanding, nipped off most of it, and no one here had much fruit, except your humble servant. And now I will tell you the secret of this, or, rather, the secrets, for they are many.



PEAR—PASSE COLMAR.

Although this tree is sixty years old, it invariably blooms as luxuriantly as shown above, and the yield of fruit is equally good.

**Bees and the Fruit Crop.**

Have you ever kept bees? If your have, you will know that in the early spring most hives are at their lowest state in the way of population. Many bees have ventured out on fine days in winter, but have never been able to return, for the early chill of the short afternoon has benumbed them. Others started out to rifle the Crocus blooms in February (for bee-bread purposes), but were killed by hail storms, and their winter stock of honey is getting low, so that it is difficult to provide enough food for the young bees in the nurseries, who not only must be fed, but also kept warm. This last difficulty becomes specially urgent in the time of bitter winds, which often blow when the fruit blossom is out, and a certain number of bees must, therefore, stay at home to keep up the necessary temperature for the babies, and really, when one comes to think of it, it must take a lot of bees to do this. The consequence of this crisis in the hives is this—so few bees can be spared to gather honey in cold weather that the blossoms drop unfertilised, in most cases, when the spring is not genial, and so our hope of fruit is swept away.

Last spring I tried an experiment to remedy this state of things, and the result was so gratifying that I hope you will do the same. On the top of a bamboo cane, about nine feet long, I tied some swansdown (but two rabbits' tails or any like fur will do just as well), and